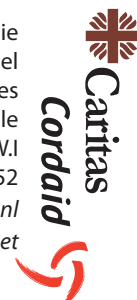


Shelter Programme.



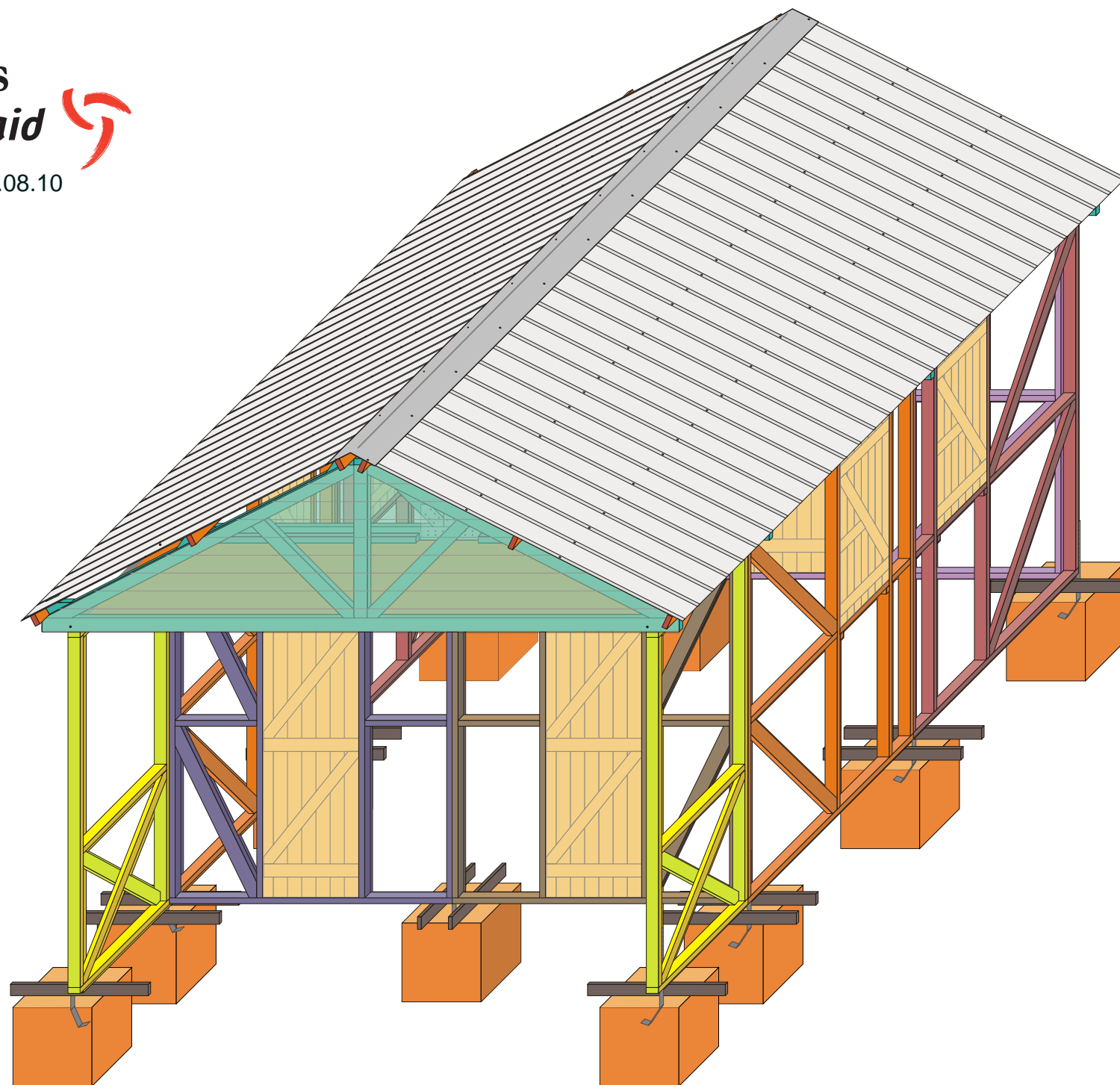
13, Impasse Thécratie  
Vivy Mitchel  
Route de Frères  
Pétion-Ville  
Haiti, W.I  
T +509 3609952  
[www.Cordaid.nl](http://www.Cordaid.nl)  
[Jip.nelissen@cordaid.net](mailto:Jip.nelissen@cordaid.net)



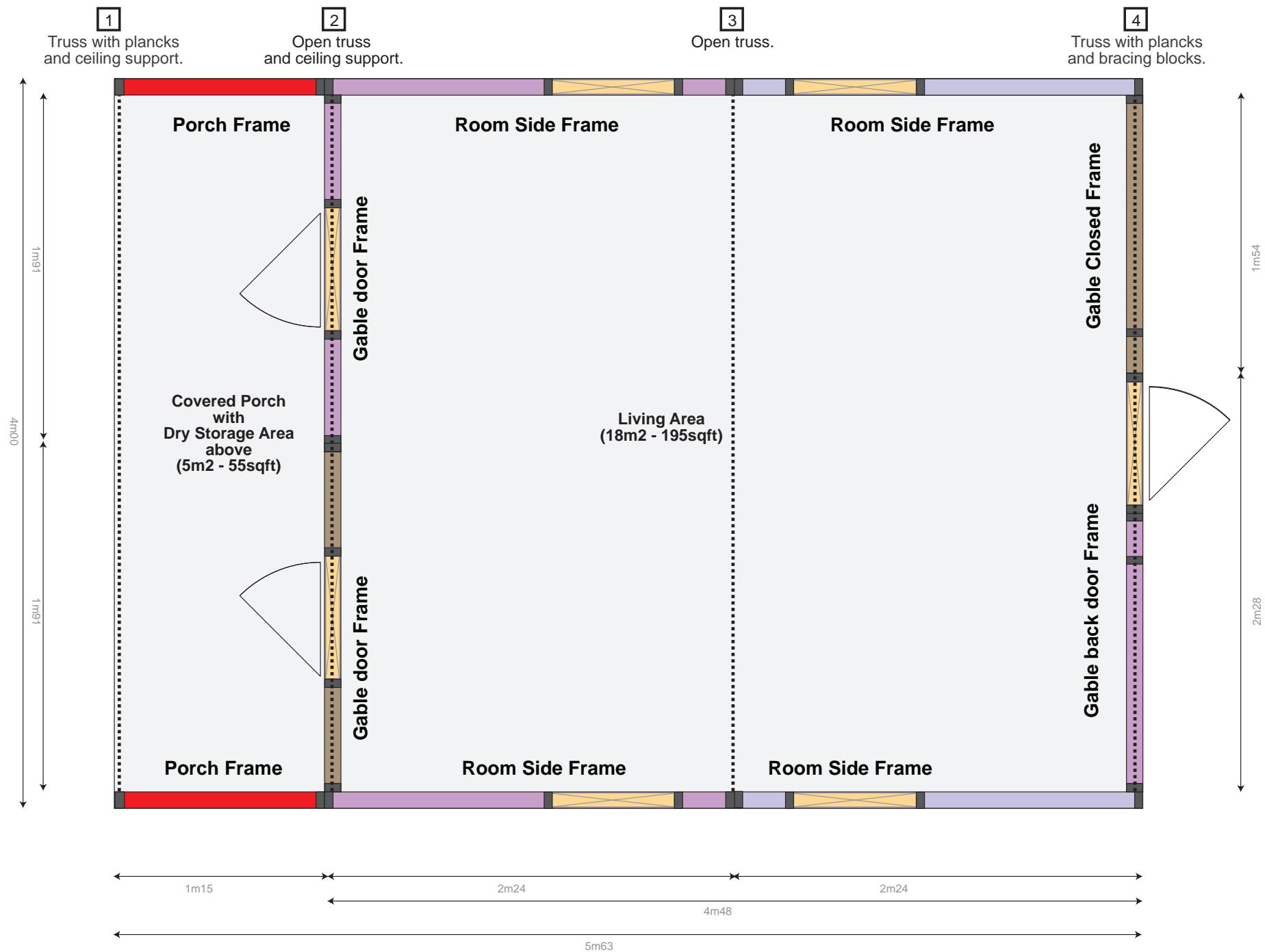
# Core Structure

Core Structure **3** | Floorplan **4** | Front wall **5** | Side Wall right **6** | Back wall **7** | Side wall left **8** | Foundation **9** | Trusses, doors and shutters **12** |  
Gusset plates **13** | Hurricane straps **14** | Porch ceiling **15** | Roof **16** | Specifications **17**

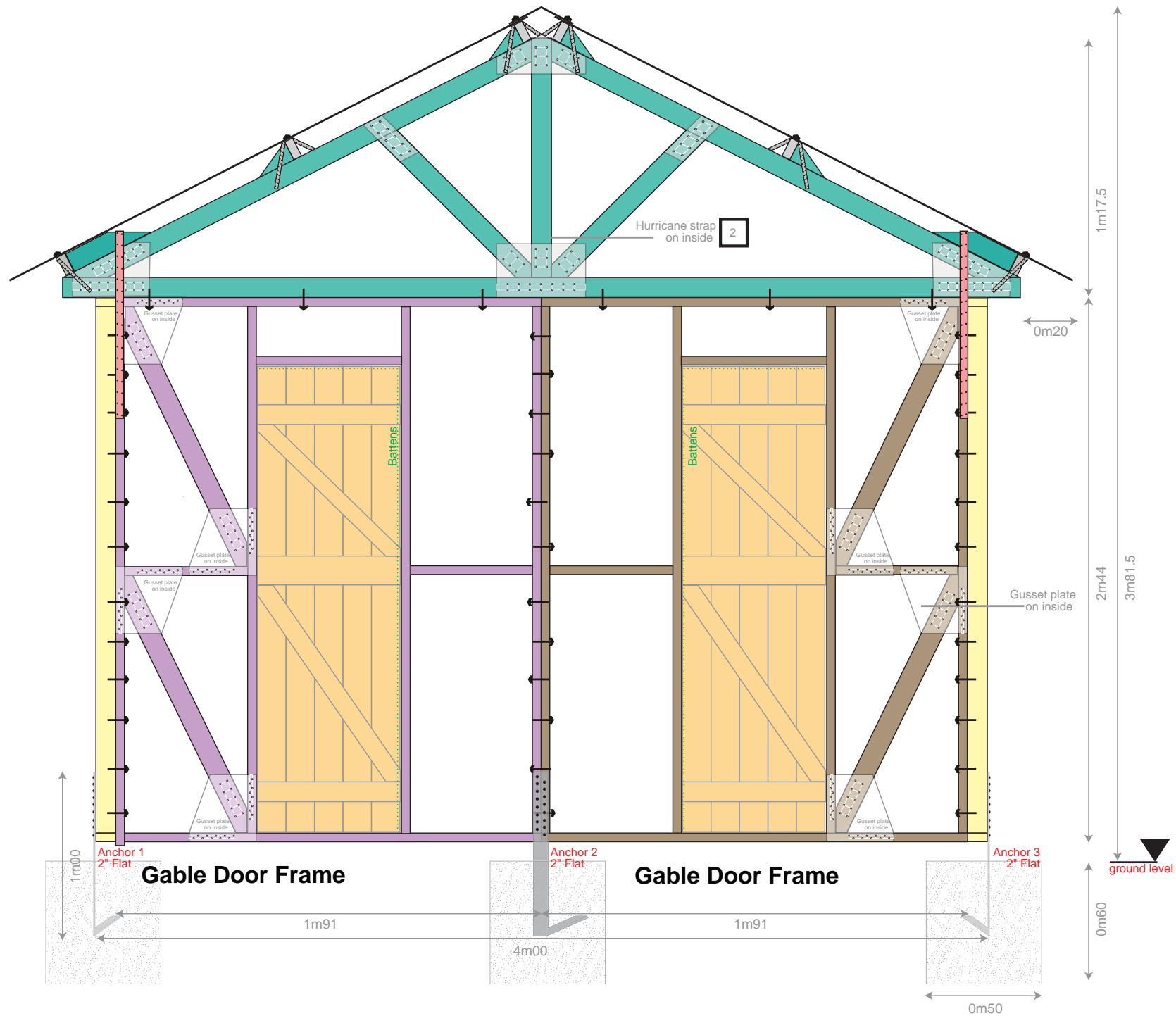
# Walls and Floors



\* Drawings are not on scale



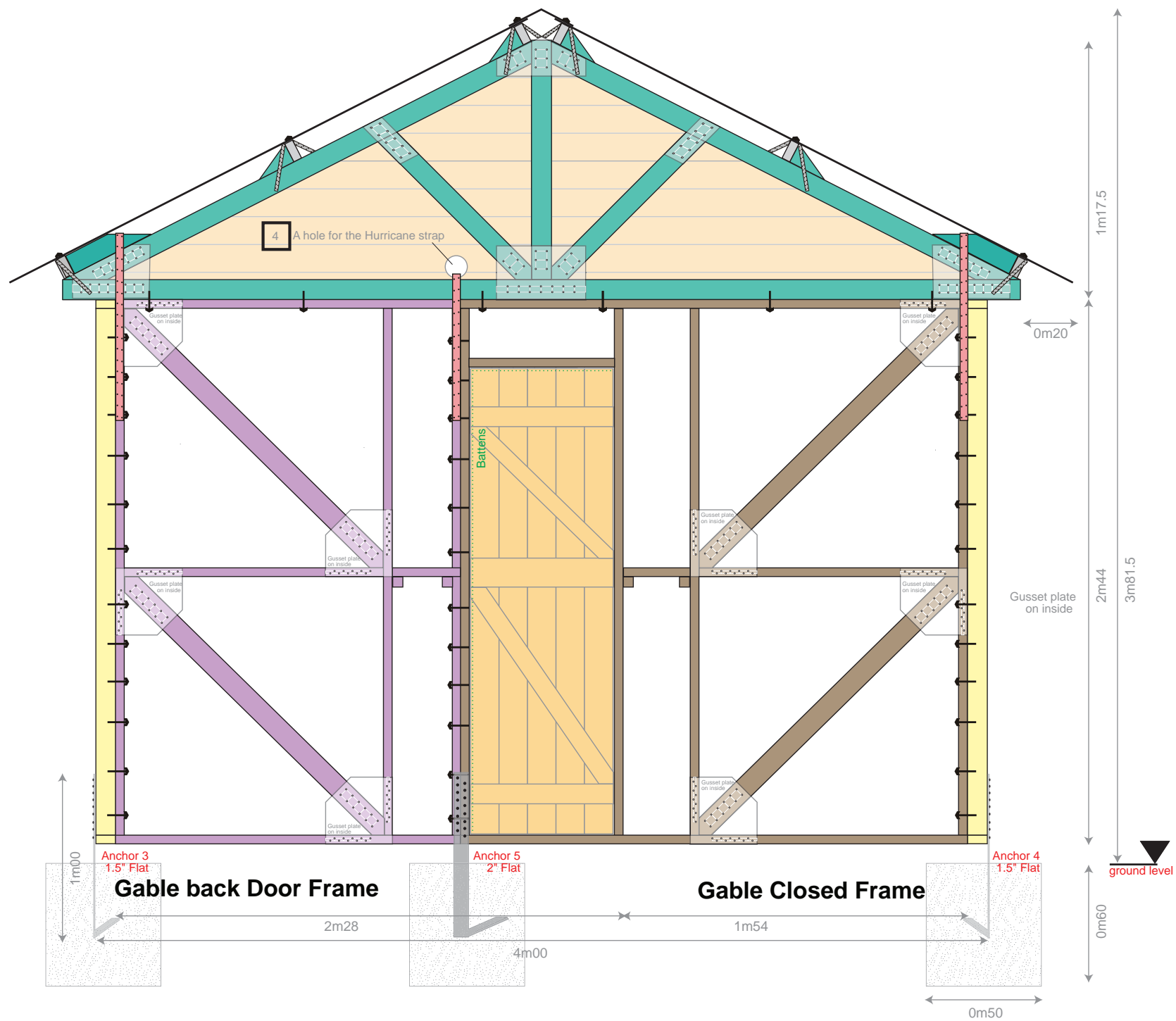
\* Drawings are not on scale



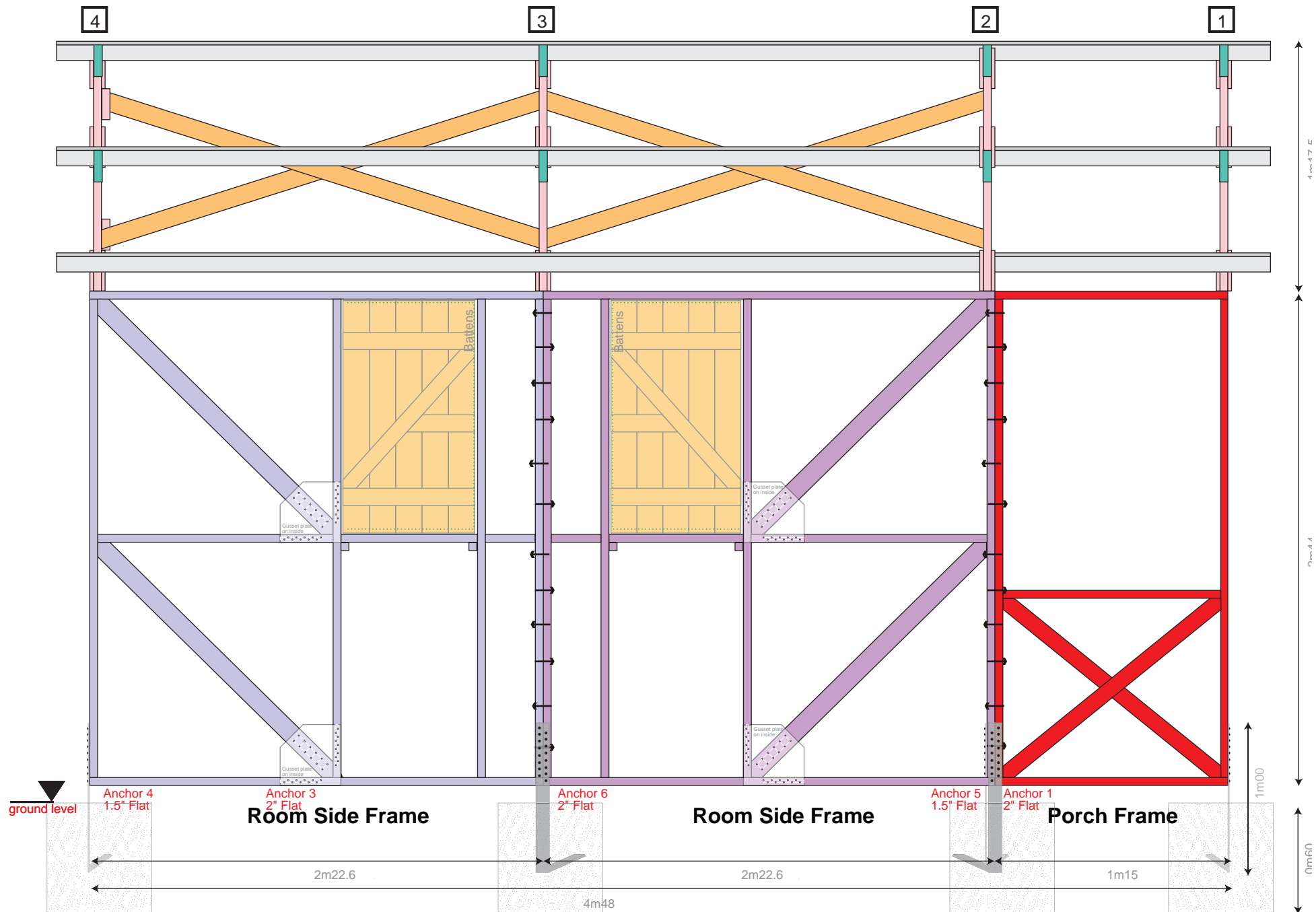
**Caritas**  
**Cordaïd**  
T-shelter | V5.5 | 24.08.10



\* Drawings are not on scale

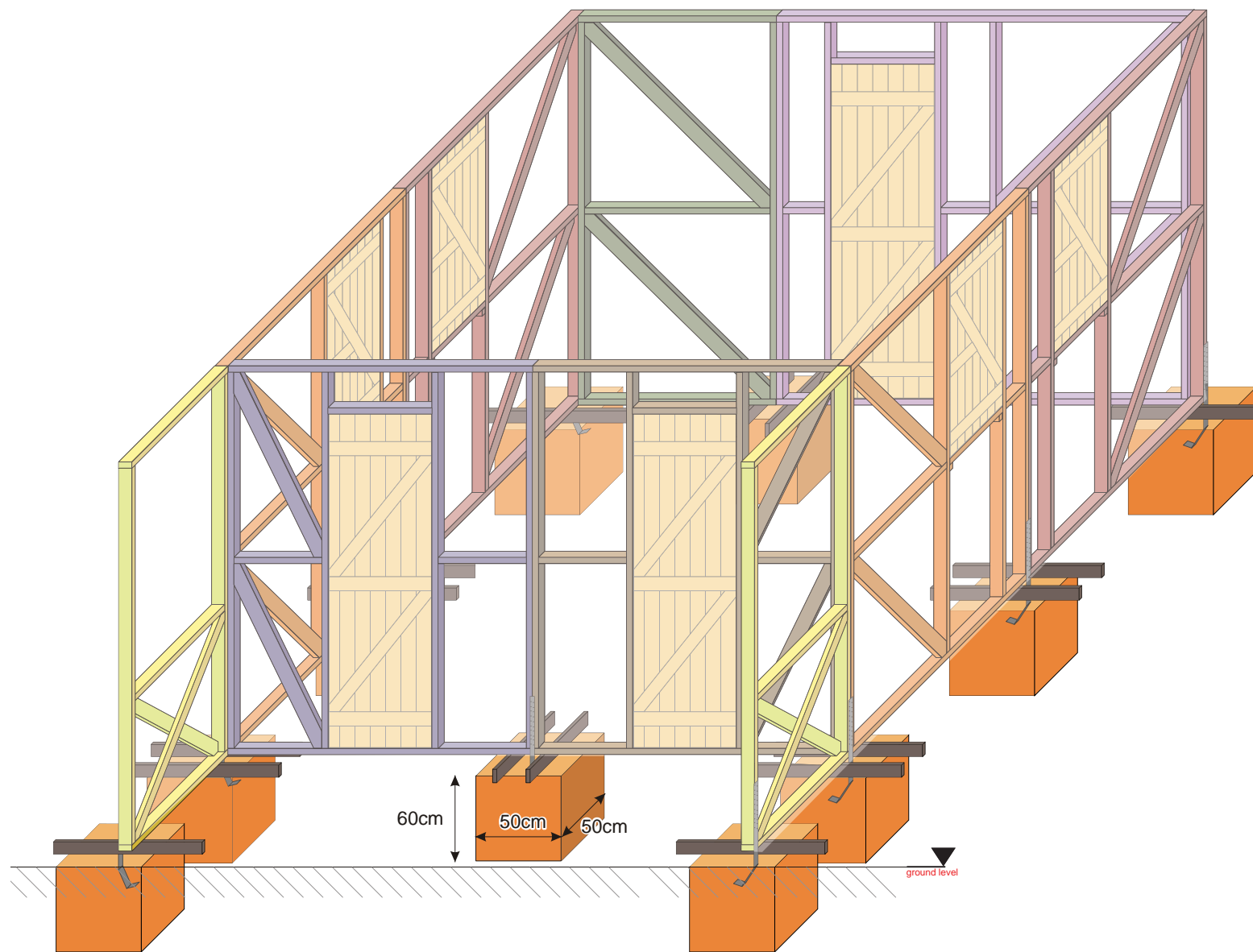


\* Drawings are not on scale \* Hurricane straps are not in drawing





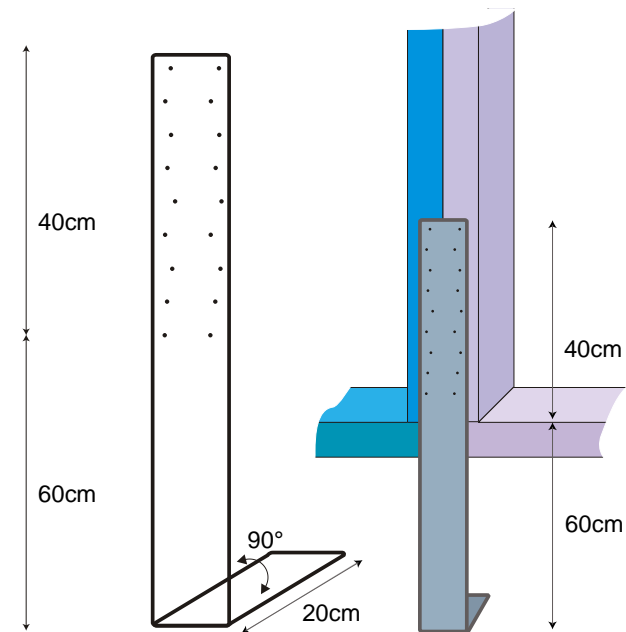
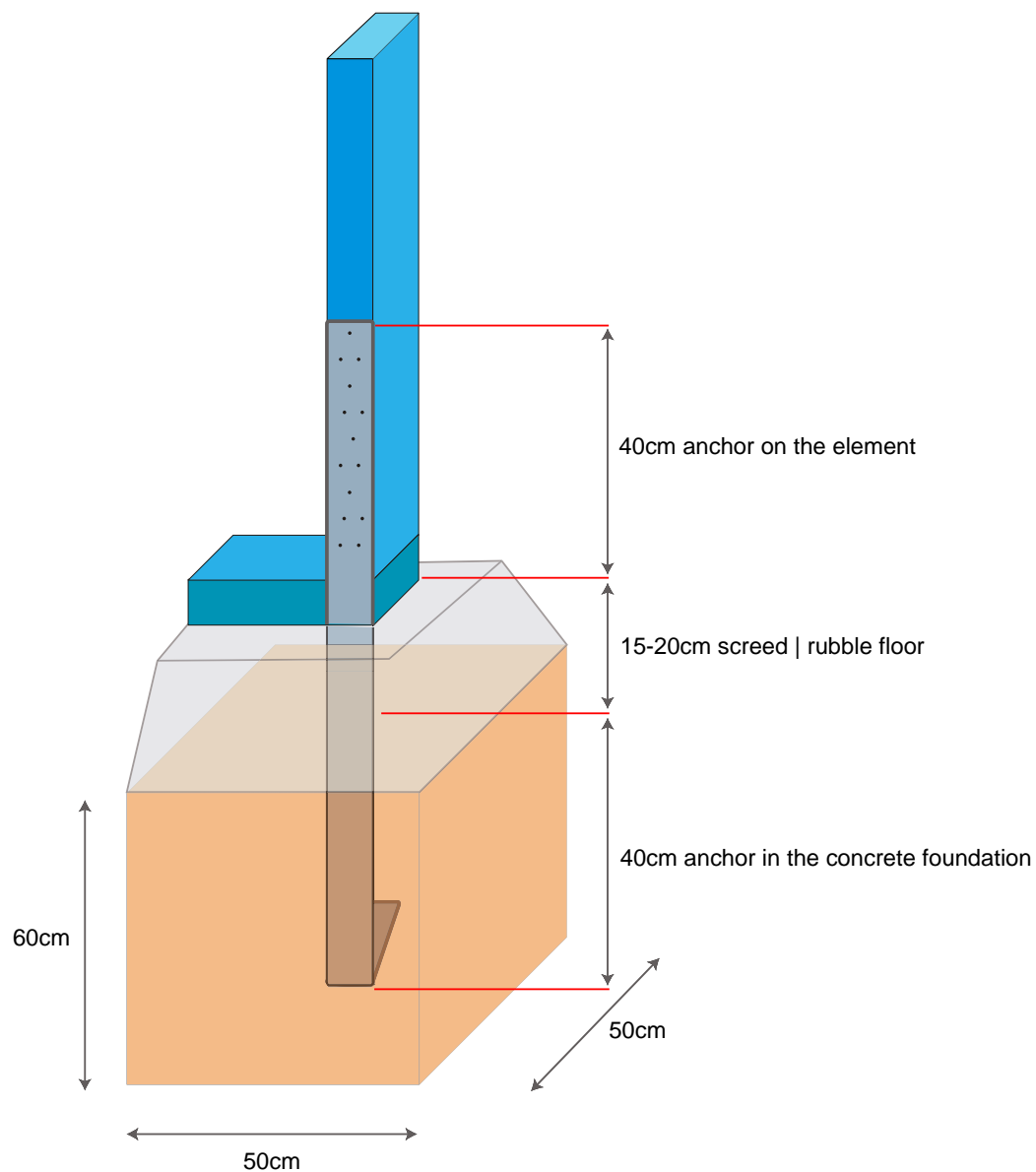
\* Drawings are not on scale



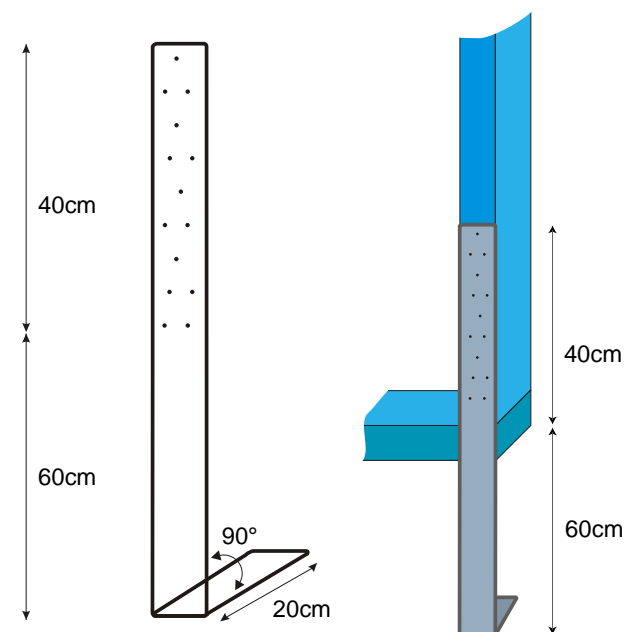
**Caritas**  
**Cordaïd**  
T-shelter | V5.5 | 24.08.10



\* Drawings are not on scale

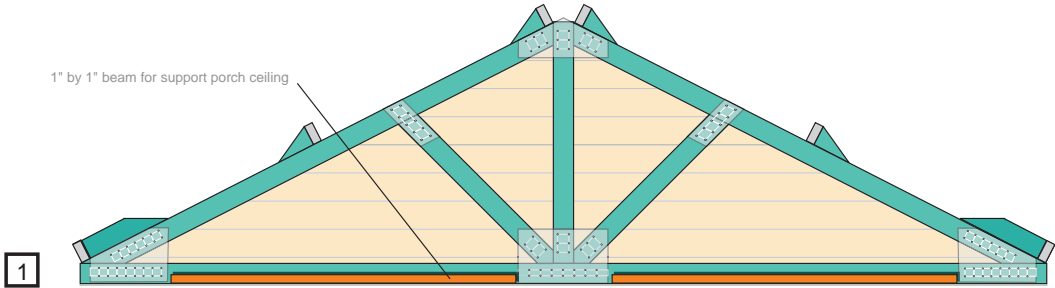


6 X Anchors 2" wide X 4ft with 18 X 2.5" 8d Nails

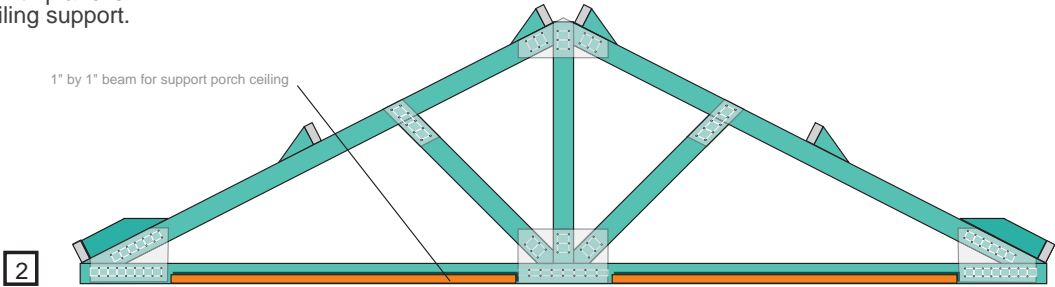


6 X Anchors 1.5" wide X 4ft with 14 X 2.5" 8d Nails

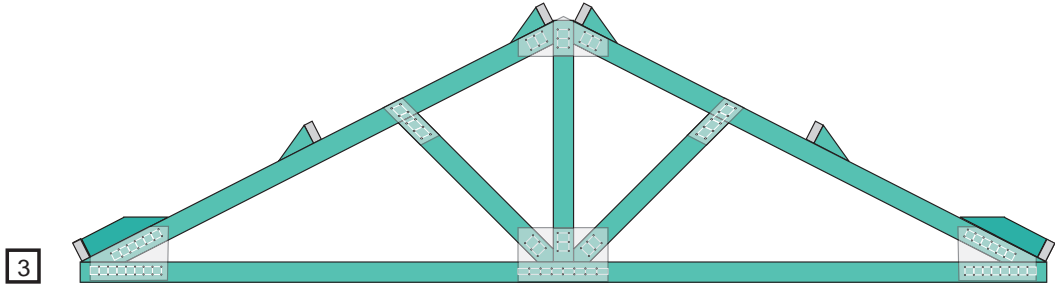
\* Drawings are not on scale



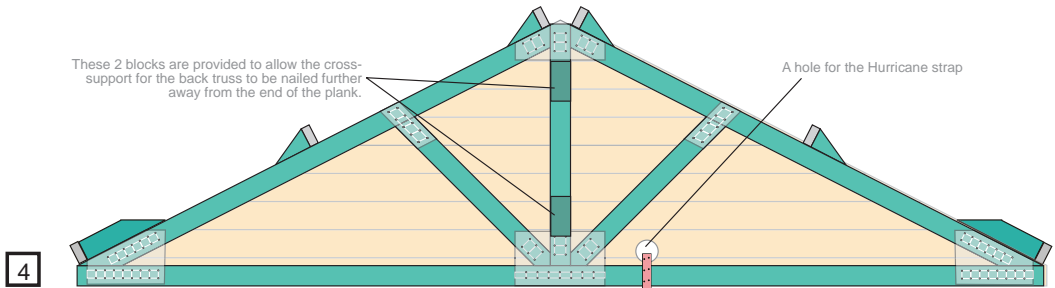
**1**  
Truss with planks  
and ceiling support.



**2**  
Open truss  
and ceiling support.



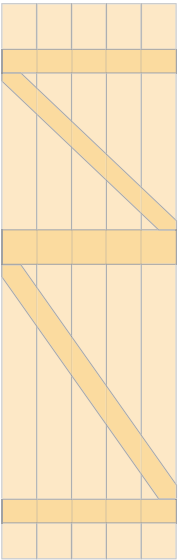
**3**  
Open truss.



**4**  
Truss with planks  
and bracing blocks.

**Door**

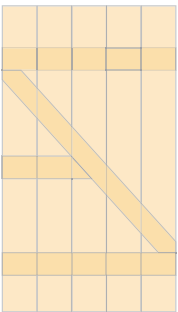
65



210

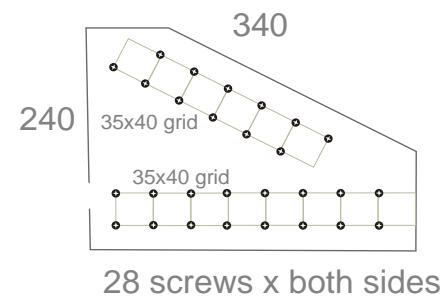
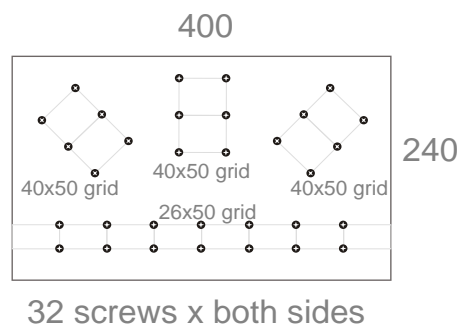
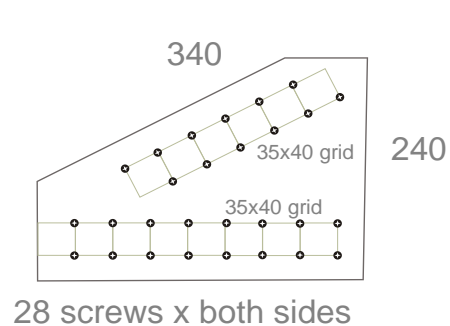
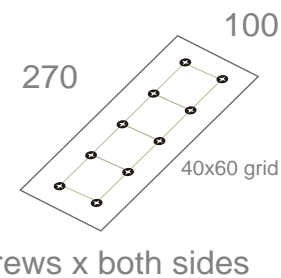
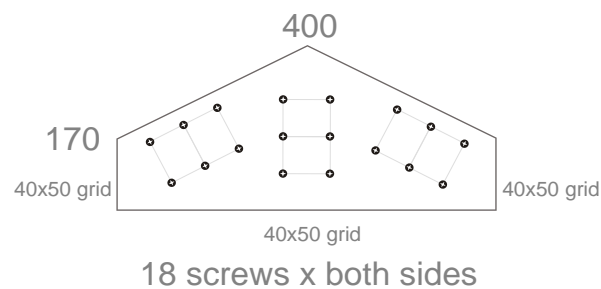
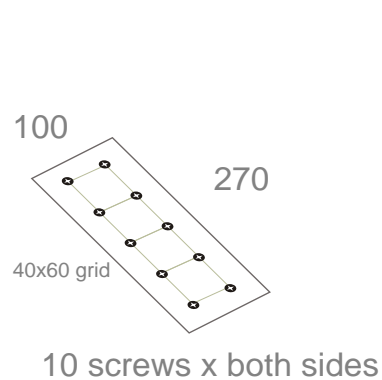
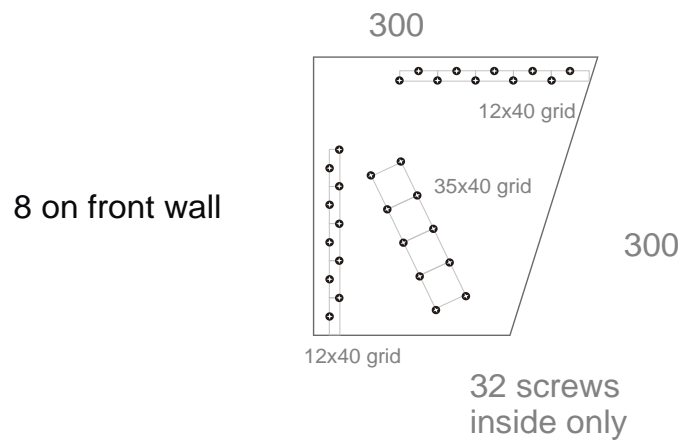
**Shutter**

65



115

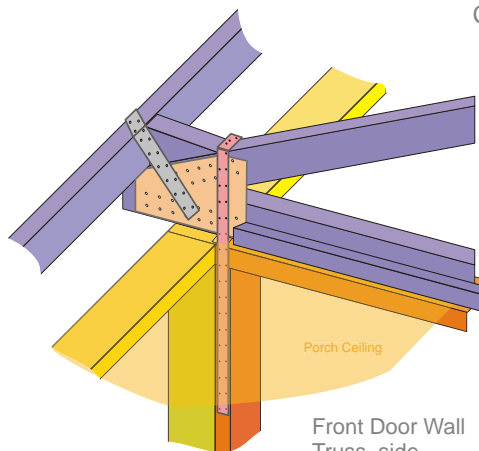
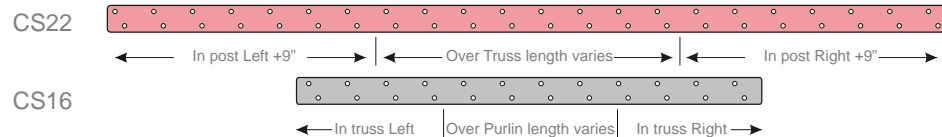
\* Drawings are not on scale



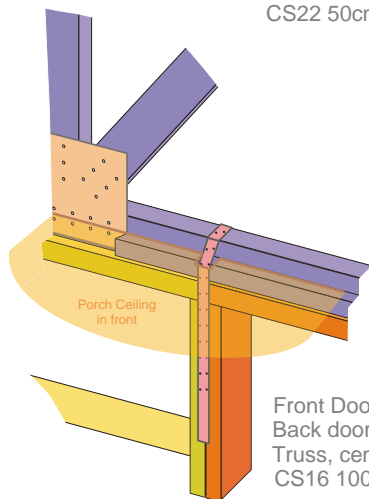
6 sets per house  
+ front and back truss closed with planks.

\* Drawings are not on scale

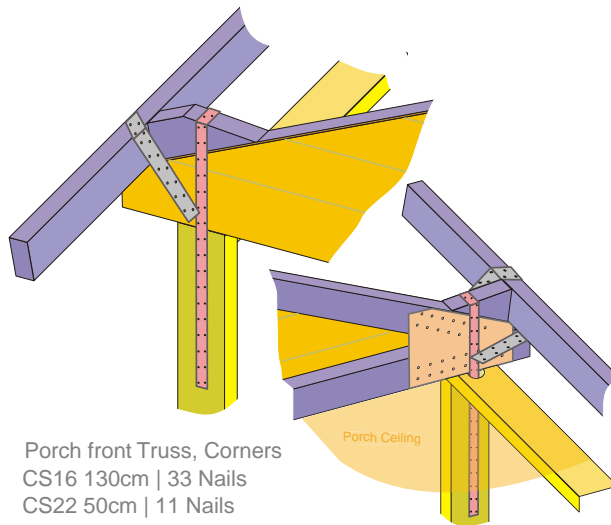
# Positioning of the Hurricane Straps to hold down trusses and purlins.



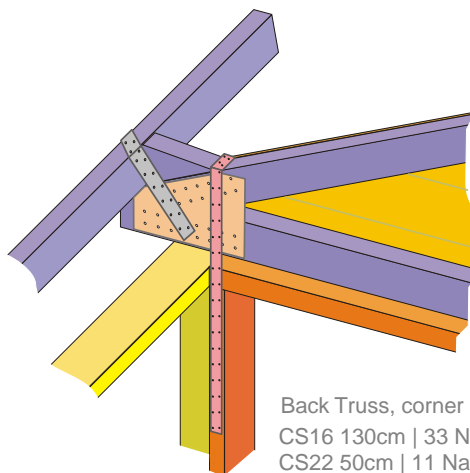
Front Door Wall  
Truss, side  
CS16 130cm | 27 Nails  
CS22 50cm | 33 Nails



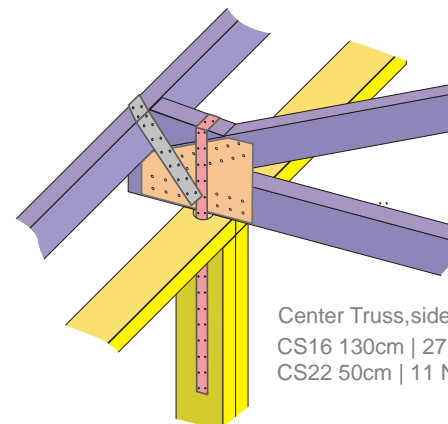
Front Door Wall,  
Back door Wall  
Truss, center  
CS16 100cm | 23 Nails



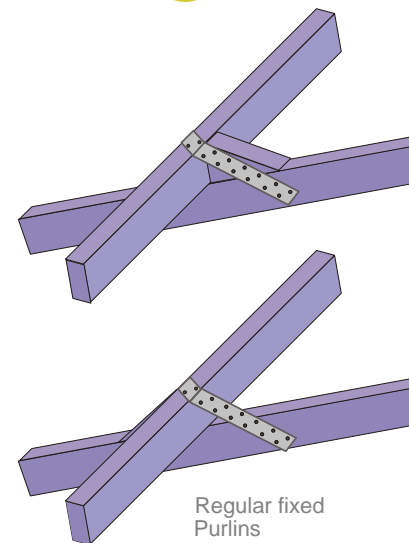
Porch front Truss, Corners  
CS16 130cm | 33 Nails  
CS22 50cm | 11 Nails



Back Truss, corner  
CS16 130cm | 33 Nails  
CS22 50cm | 11 Nails



Center Truss, sides  
CS16 130cm | 27 Nails  
CS22 50cm | 11 Nails

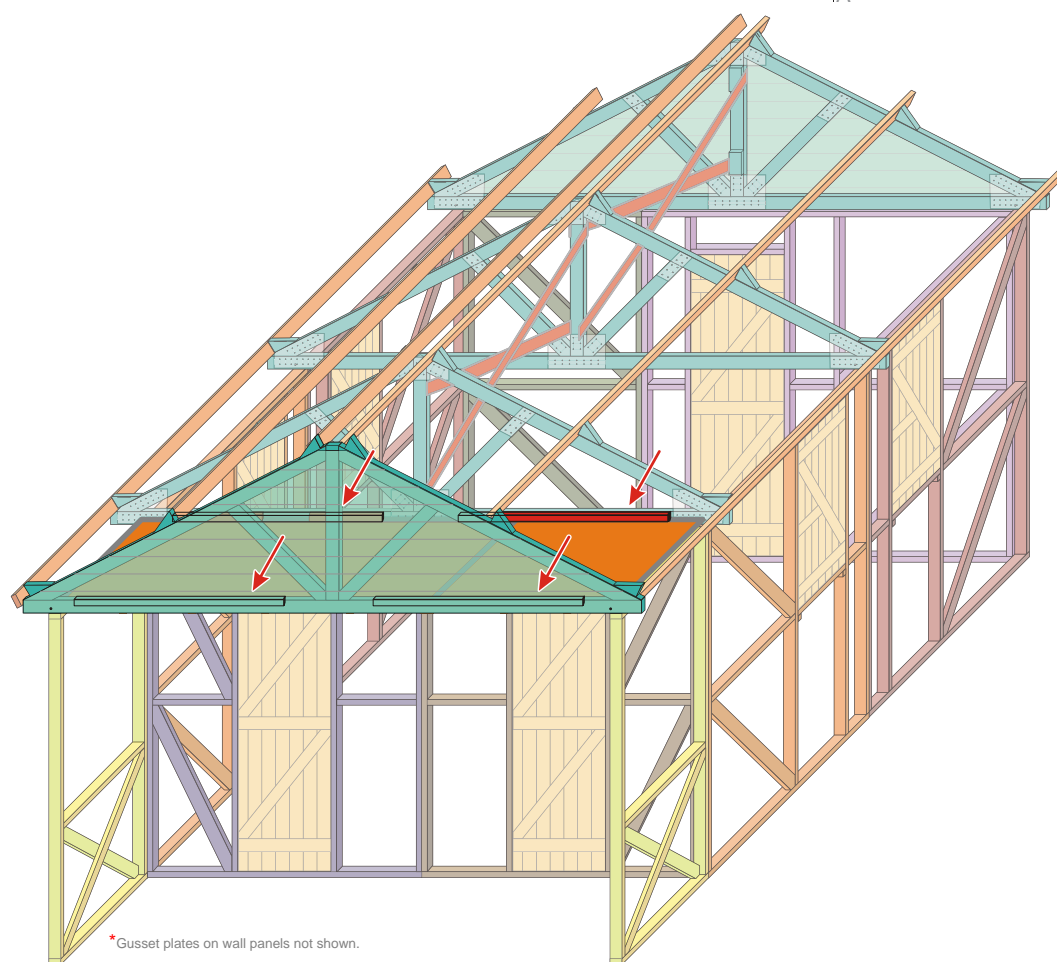
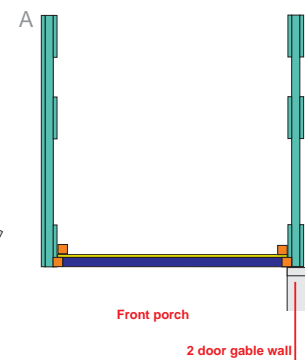
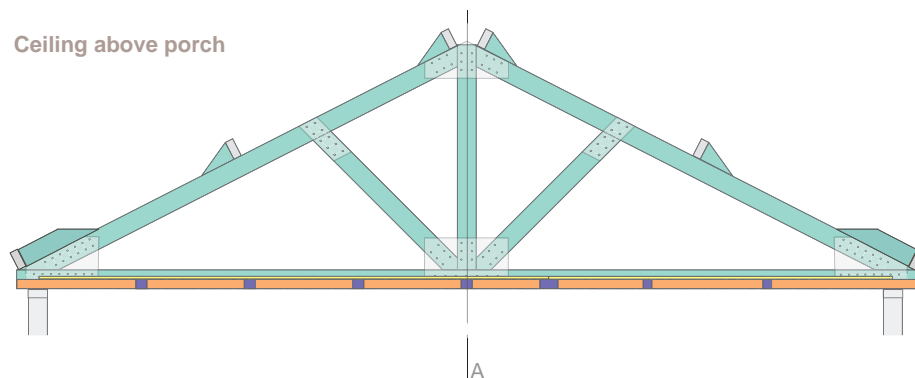


Regular fixed  
Purlins  
CS22 50cm | 11 Nails

\* Gusset plates on wall panels not shown.

\* Drawings are not on scale

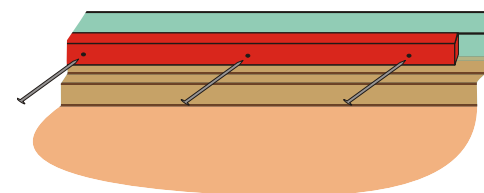
Ceiling above porch

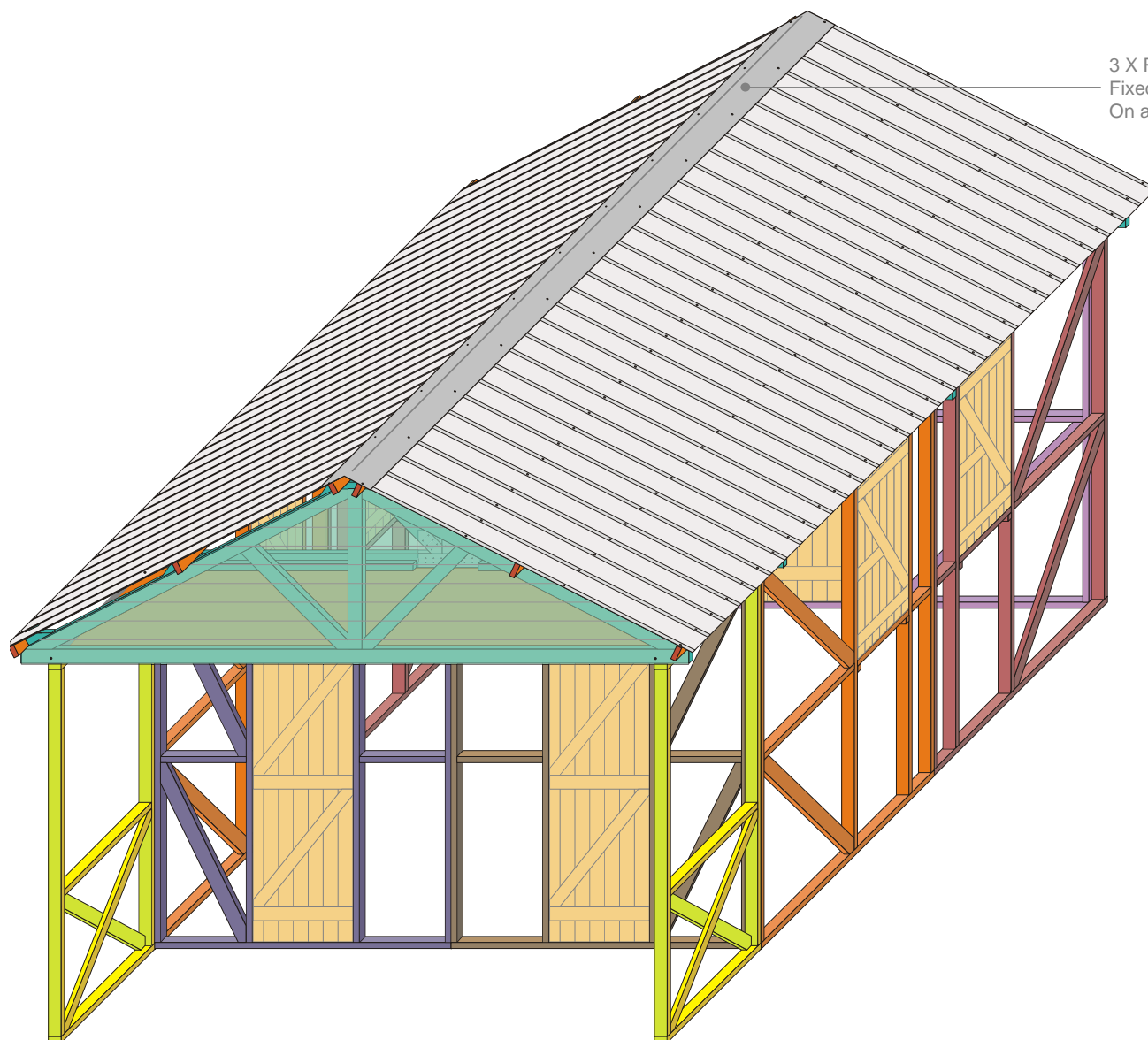


\* Gusset plates on wall panels not shown.

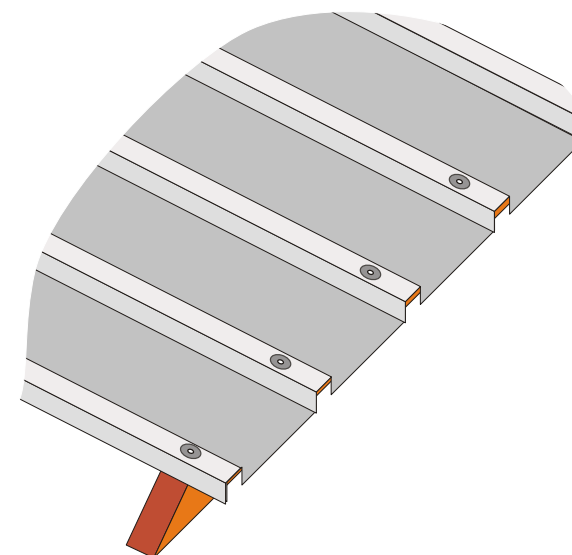
#### Drop in the porch Ceiling

- The Porch Ceiling is put in 2 pieces, supplied with bottom supports fixed to each.
- Put the ceiling between the 2 front trusses, on the 2x2 support fixed to each truss.
- Keep it down with 4 pieces of 2x2 in the positions shown, each fixed with 4 nails of 3.5" HDG as indicated.





3 X Ridge Pre-painted Aluzinc 7ft , 26GA (0.5mm)  
Fixed with twisted Roofing nails 62 x 2.5" with Washer or Tar  
On all 31 Ridges on both sides of the roof one



14 X Roofsheets Pre-painted Aluzinc 8 ft 6 , 26GA (0.5mm)  
Fixed with twisted Roofing nails 186 x 2.5" with Washer or Tar  
On all 31 ridges of the profiled sheet and in all 6 perlin one.



Category	Type					per house	1,850 houses	Aprox Price	Aprox Total
Wood									
	2x4x8	Southern Yellow Pine, ACQ Pressure treated #2, Prime				300 bft	555,000 bft	1.10	610,500
	2x4x12	Southern Yellow Pine, ACQ Pressure treated #2, Prime				106 bft	196,100 bft	1.10	215,710
	2x4x14	Southern Yellow Pine, ACQ Pressure treated #2, Prime				62 bft	114,700 bft	1.10	125,170
	2x4x20	Southern Yellow Pine, ACQ Pressure treated #2, Prime				88 bft	162,800 bft	1.10	179,080
	1x4x16	Southern Yellow Pine, ACQ Pressure treated #2, Prime				24 bft	44,400 bft	1.10	48,840
	2x4x8	Southern Yellow Pine, SAS #2, Prime				59 bft	109,150 bft	1.10	120,085
	2x4x12	Southern Yellow Pine, SAS #2, Prime				18 bft	33,300 bft	1.10	36,630
	2x4x14	Southern Yellow Pine, SAS #2, Prime				52 bft	96,200 bft	1.10	105,820
Roof	Roofing sheets					32 m2	59,200 m2	11.00	651,200
	Ridge Cover	Pre-painted Aluzinc 8 ft 6 , 26GA (0.5mm)		260X110cm		12 pcs	24,420 pcs		
		Pre-painted Aluzinc 7ft , 26GA (0.5mm)		210X60cm		3 pcs	6,105 pcs		
Hardware									
	Barrel bolts 80mm with lock					2 pcs	4,070 pcs	4.00	16,280
	Barrel bolts 60mm inside					7 pcs	14,245 pcs	1.50	21,368
	Hinges					17 pcs	34,595 pcs	0.85	29,406
	Anchors 1.5" wide x 4ft = 5 per bar					6 pcs	2,442 bars of 3/16" x 1.5" x 20ft	24.00	58,608
	Anchors 2" wide x 4ft = 5 per bar					6 pcs	2,442 bars of 3/16" x 2" x 20ft	24.00	58,608
	Hurricane Straps CS22 854 lbs 50 cm for purlins					24 pcs	267 rolls of 300ft each	165.00	44,065
		CS22 for perlin 24 x 50cm		1200 cm					
	Hurricane Straps CS16 1370 lbs					10 pcs	552 rolls of 150ft each		
		CS16 for corner trusses 8 x 130cm		1040 cm					
Screws									
	#10 x 4" screws zinc or treated for ACQ								
	Assemble Frames					344 pcs			
	Total #10 x 4" screws zinc or treated for ACQ					344 pcs	700,040 pcs	/1000	50,403
	#8 x 3" screws zinc or treated for ACQ								
	To put purlin triangles					48 pcs			
	To fix support for porch ceiling					30 pcs			
	To fix blocks for truss support					8 pcs			
	Total #8 x 3" screws zinc or treated for ACQ					86 pcs	175,010 pcs	/1000	6,650
	#8 x 1.50" screws zinc or treated for ACQ								
	For Gussat plates total (6 sides)					1,476 pcs			
	Front and back planks on trusses					220 pcs			
	Barrel Bolts x7 (8 per bolt)					63 pcs			
	Hinges (17 hinges x 8screws)					136 pcs			
	To assemble Porch frame					67 pcs			
	Total #8 x 1.5" screws zinc or treated for ACQ					1,962 pcs	3,992,670 pcs	/1000	95,824
	#8 x 1.25" screws zinc or treated for ACQ								
Nails									
	Doors, 3x					150 pcs			
	Shutters, 4x					160 pcs			
	Total #8 x 1.25" screws zinc or treated for ACQ					310 pcs	630,850 pcs	/1000	15,140
	Roofing screws with washer 1/4" #14x2.5" (or same eqvt nails)								
	To fix roofing sheets					186 pcs			
	To fix ridge					62 pcs			
	Total Roofing screws with washer 1/4" #14x2.5" (or nails)					248 pcs	504,680 pcs	/1000	65,608
	Nails 3.5" Hot Dipped Galvanized 16D								
	To pre-fix trusses					120 pcs			
	To pre-fix trusses					24 pcs		44 /lb	
Nails									
	To install porch ceiling					20 pcs			
	To pre-fix purlins					48 pcs		67 /lb	
	Total Nails 3" Hot Dipped Galvanized 10D					212 pcs	431,420 pcs	6,439.10 lbs	2.10
	Nails 2.5" Hot Dipped Galvanized 8D								
	To fix CS16 50cm for trusses corner (68 each)					528 pcs			
	To fix CS16 100cm for trusses corner (50 each)					100 pcs			
	To fix CS16 150cm for trusses corner (50 each)					112 pcs			
	to fix 6 anchors 1.5" (14 each)					108 pcs			
	to fix 6 anchors 2" (18 each)					360 pcs		94 /lb	
	to fix CS22 50cm for purlins (15 each)								
	Total Nails 2.5" Hot Dipped Galvanized 8D					1,208 pcs	2,458,280 pcs	26,151.91 lbs	2.10
Foundations									
	Nails 2" Hot Dipped Galvanized 6D					40 pcs			
	to fix battens for windows, 4x 10 nails					48 pcs		125 /lb	
	to fix battens for windows, 4x 10 nails					48 pcs			
	Total Nails 2" Hot Dipped Galvanized 6D					88 pcs	179,080 pcs	1,432.64 lbs	2.10
Foundations									
	Foundations (10X) concrete 1:2:3 600x500x500 (0.15m3) - see drawing								
	Cement 49kg bags					10 psc	490 kg		
	Sand						900 kg		
Total mass	Aggregate						1800 kg		
	mass per foundation						3190 kg		
							360 kg		
Floors									
	Floor, 50mm rubble topped by 50mm screed 1:2 Extends beyond walls – see drawing.					10 psc	490 kg		
	Cement 49kg bags						980 kg		
Total mass	Sand						1495 kg		
	Rubble						2965 kg		
	@ 1300 per sqm			1.15					
Walls									
	Wall type A   Heavy Wall   Rocks/Debris infill of 100mm infill between timber of panel, cement render 15mm on both sides – see drawing								
	Cement 49kg bags					7 psc			
	Sand					343			
Total mass	Rock					1,000			
						2,000			
						3343 kg			
B	Wall typeB   Light Wall   viber-cement board/plywood cladding mounted on timber of panel – see drawing								
	12mm plywood					negligible			