## **Changing**places



### What is timber kit construction?

Timber frame construction generally refers to an open panel system where timber frames comprising of a softwood stud frame are backed with a layer of timber sheet material. The panels are manufactured in accordance with the pavilion design, delivered to site and fixed together to provide the structural frame of the building.

#### How is this constructed?

When constructing a timber framed building, excavation and foundation installation take place as per masonry construction and normally brought up above ground to damp course level using brick and block. A concrete ground floor slab is usually cast prior to the timber frame arriving on site.

Prefabricated panels are manufactured off-site in accordance with the design, delivered to site and erected forming the inner skin of the building in place of the blockwork skin in masonry construction. This is the structural load-bearing element of the building and supports the roof and internal loads. The roof structure follows on using traditional cut timber construction, roof trusses or a panel system. The application of a roofing membrane and windows and doors can achieve a watertight shell within a matter of days.

Following the first fix of plumbing and electrics, the panels are filled with insulation. Breather paper is fixed to the outside, a vapour check barrier to the inside and the walls can then be plaster boarded.

External finishes can begin as soon as this timber shell is complete. Any facing materials can be used including brick, stone and timber.

### **Advantages**

Many advantages of timber frame construction are a result of the increase in the portion of off-site construction. Controlled factory prefabrication allows:

- Greater efficiency of manufacture reducing wastage.
- High standard of quality and accuracy
- More accurate cost forecasts are possible.
- Faster site construction than masonry construction
- Reduced labour costs especially site specific skilled labour.
- Can be a very sustainable form of construction

As with any timber frame method, all timber should be sourced from properly managed suppliers who are FSC certified.

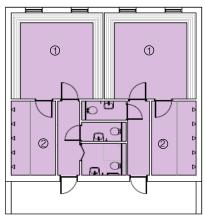
## Disadvantages

- Design and procurement time can be longer than alternatives.
- Longer on-site construction period than other construction types.
- Responsibility of Club Project Manager to ensure project delivered to design and on time and budget.
- Process relies on skill and management of tradesmen
- New work needs to be protected from the elements.

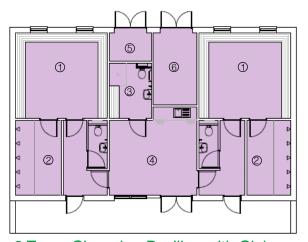
sportscotland the national agency for sport

# **Changing**places





2 Team Changing Pavilion



2 Team Changing Pavilion with Clubroom

Sch	edule of Accommodation	
	Home Changing Room	40m <sup>2</sup>
(1	Changing Area	20m <sup>2</sup>
2		20m²
	Away Changing Room	40m²
1	Changing Area	20m <sup>2</sup>
2	Showers/ WC	20m²
(3)	Accessible WC/ Referee Changing	9m²
4	Club Room	17m²
5	Plant Room	8.5m <sup>2</sup>
6	External storage area	8.7m <sup>2</sup>

#### Costs for Timber Construction excl VAT

0 -	_	$\circ$	100
.)	<b>Feam</b>	(:han	ıaına
_	ı Garrı	Onan	giiig

Building footprint (including terrace)

Nominal Cost

111m<sup>2</sup>
£111-£170K

#### 2 Team Changing and clubroom

Building footprint (including terrace) 162m²
Nominal Cost £165 -£245K

#### 4 Team Changing and clubroom

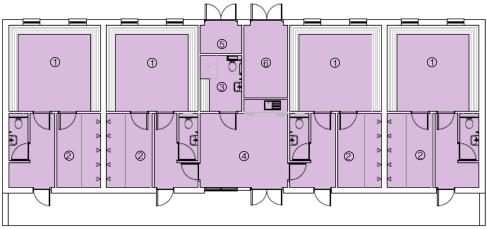
Building footprint (including terrace) 273m²
Nominal Cost £275 - £410K

The club will need to consider the following additional services associated with a building project. (additional services are given as a percentage of total project cost)

•	Site works	10%
•	Professional Fees	10 -15%
•	Service Connections	3-5%
•	Prelims and Contingency	15%
•	Statutory Fees	1-2%

These costs do not include one off charges for delivery of units to site, craneage costs and installation of buildings at site.

All costs based on Autumn 2012 prices. Costs have been prepared using BCIS.





4 Team Changing Pavilion with Clubroom