

Changingplaces



Changingplaces Passivhaus Construction

What is PassivHaus Construction?

It is possible to use Scottish timber frame technology to meet the internationally recognised, Passivhaus standard - the fastest growing energy performance standard in the world. The pavilions are built with meticulous attention to detail, rigorous design and construction according to principles developed by the Passivhaus Institute in Germany, and can be certified through a quality assurance process. They generally need 90% less energy for heating and hot water than standard buildings and have very low running costs.

Passivhaus takes a 'fabric first' approach, based on excellent insulation, high levels of airtightness, and designed for solar gain with an integrated Heat Exchange System. As a consequence of these the building retains heat from activities within the building and does not need a traditional central heating system.

How is this constructed?

High quality Scottish timber is used throughout the design for the frame and cladding to Passivhaus specification. The costs noted are for a closed panel construction process and provides the first fix services, insulation, damp proof membranes in the factory prior to delivery on site. Doors, windows and internal / external finishes are then completed on site in a more traditional manner. This allows complete freedom in external finishes for the walls and roof.

The contractor will undertake any excavation and foundation installation with masonry construction normally brought up above ground to damp course level using brick and block. A timber ground floor construction allows for better air tightness and insulation.

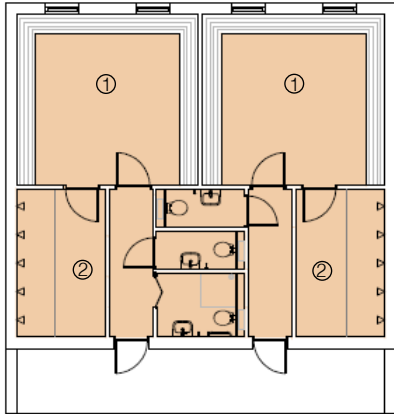
Advantages

- Very low annual running costs (up to 90% lower) associated with this construction type.
- Pre-Finished in factory to ensure consistency of high quality finish.
- Environmentally friendly solution using Scottish timber.
- Quick lead-in times due to fast factory construction process.
- Faster on site build benefits construction phase.
- Good indoor air quality with highly efficient heat recovery.
- Choice of thermal specification.

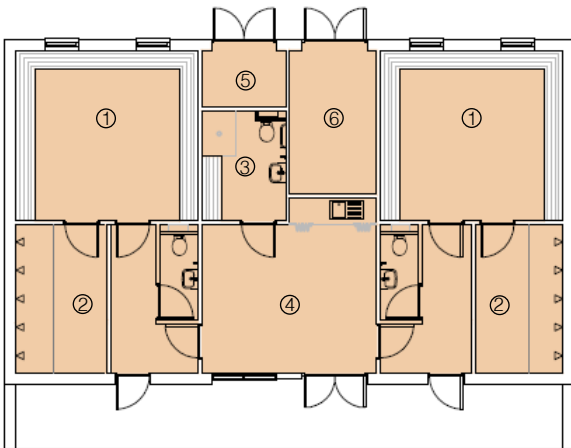
Disadvantages

- Greater initial capital cost of facility.
- Higher specification of key building components.
- Additional requirements for Consultant input and administrative costs.
- Site orientation and location important consideration.
- Limitations to panel sizes available due to manufacturing and transportation.
- Limited number of contractors nationwide

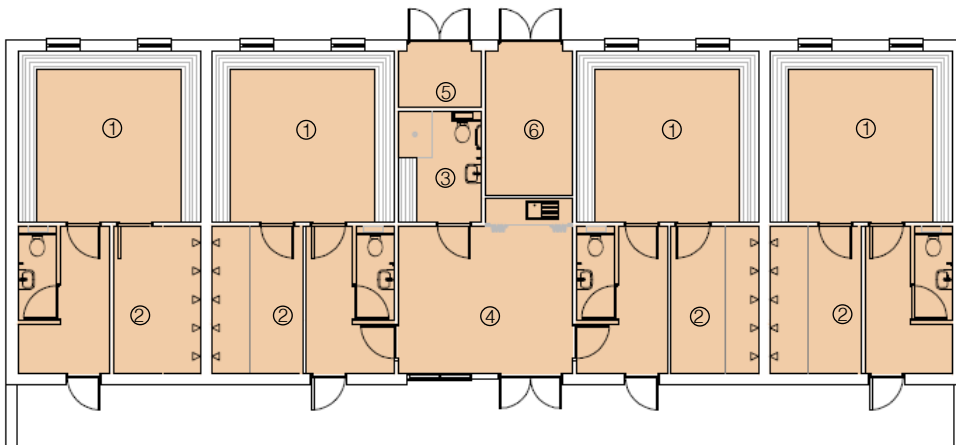
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2 Team Changing Pavilion



2 Team Changing Pavilion with Clubroom



4 Team Changing Pavilion with Clubroom

Schedule of Accommodation

Home Changing Room		40m ²
①	Changing Area	25m ²
②	Showers/ WC	15m ²
Away Changing Room		40m ²
①	Changing Area	25m ²
②	Showers/ WC	15m ²
③	Accessible WC/ Referee Changing	7.5m ²
④	Club Room	23m ²
⑤	Plant Room	4m ²
⑥	External storage area	10m ²

Costs for Passivhaus Construction excl VAT

2 Team Changing		
	Building footprint (including terrace)	105m ²
	Nominal Cost	£155K
2 Team Changing and clubroom		
	Building footprint (including terrace)	185m ²
	Nominal Cost	£200K
4Team Changing and clubroom		
	Building footprint (including terrace)	295m ²
	Nominal Cost	£315K

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, carneage costs and installation of buildings at site.

All costs based on Autumn 2012 prices. Costs prepared by John Gilbert Architects and Hadden Construction.

