

# Cabinco E-Brochure

Schools and Commercial

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# Environmental Policy Statement



Cabinco Ltd: <http://cabinco.co.uk/> create a wide variety of sustainable timber buildings, which meet and exceed UK Building Regulations. Our range includes substantial commercial buildings, school buildings, shelters, visitor centres, holiday chalets and home offices. Cabinco's timber buildings are constructed with minimal environmental impact, supplied with low Emissive glass, superior insulation and all timbers are sustainable sourced and can be supplied Certified with Forest Stewardship Council® (FSC®) and Programme for the Endorsement of Forest Certification (PEFC®). Our standard cladding is Siberian Larch a timber which does not require preservative treatment and is naturally long lasting and weather resistant.

Cabinco Ltd. recognises its activities, goods and services have an effect on both the local and global environment, therefore this environmental policy documents how Cabinco Ltd. integrates environmental management into all our purchases, processes, activities and services. Resources are in place to implement this environmental policy including achieving our fundamental commitments to:

- Prevent pollution at source and as a minimum comply with all applicable legislation, regulations and other requirements to which we subscribe and;
- Continually improve our environmental management and performance, through setting and achieving annual environmental objectives.
- To achieve these underlying principles Cabinco Ltd. reviews and updates the environmental objectives to take account of developments within the business and changes in applicable legislation, technology and environmental best practices. In particular we will maintain our subscription to the free environment agency legislation update service NetRegs and review all bulletins.

Monitor our significant environmental impacts to enable them to be managed effectively including minimising use of on-site machinery powered by fossil fuels, optimising deliveries to reduce transportation etc. All of which reduces the carbon footprint of the build process.

Evaluate each operation and ensure it is as efficient as possible to minimise energy consumption and production of waste.

Minimise waste at source, reuse, recycle and as a final resort dispose of waste in line with our legal responsibilities and our commitment reducing site waste. Our EMS855 targets and objectives state measurable targets to achieve this.

Continue to ensure our buildings can be specified against BREEAM construction standards.

Provide information to clients about heating system options including accessing the Renewable Heat Incentive (RHI) to decrease payback periods of installing renewable energy solutions.

Evaluate the sources and types of timber from which our products are made, consistent with our certification to industry best practice standards including FSC and PEFC Chain of Custody Certification.

This environmental policy is available on request and shall be reviewed in the event of significant changes to applicable environmental legislation or developments to Cabinco Ltd. activities, goods and services.

- ▶
- ▶ Simon Lawrence, Director of Environmental Strategy.

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# Our Buildings



Our buildings are designed to meet or exceed all current UK Building Control legislation, including a high end BREEAM specification if required.

Cabinco timber buildings are all based around a structural MPL\* shell which is then insulated externally, and clad in Siberian Larch, although we can incorporate a wide range of alternatives to suit client requirements.

*\* See the technical section for full details.*

Each building is individually designed, and all components are machined and cut off-site. The MPL system facilitates rapid erection, optimises accuracy, and minimises the use of heavy plant. A “spin-off” benefit of our system is the ability to work in relatively confined areas without having to lift heavy panels etc over existing buildings.

Our buildings can sit on a variety of foundations, enabling us to choose the most appropriate for your soil type/budget or any other restrictions.

Each building is individually designed, **with you**, based on your specific requirements: starting with the floor plan to ensure the optimum layout for you.

We can provide what Michael Gove calls a “flat pack” solution without compromising specification, performance, space or your learning environment.

Design

Construct

Complete

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# Sustainability



Sustainability is at the heart of the Cabinco construction system.

We seek to provide buildings which are sustainable through design, choice of materials, offer sustainability within the construction method on site and by providing buildings which have low energy usage and require very low maintenance.

## **Design**

Our buildings are designed to make maximum use of Natural Daylight through large glazed areas and use of roof lights and sun tunnels where possible. Cabinco recognise all the benefits this can provide both in terms of the occupants well-being and to further reduce your energy use and your carbon footprint. Excessive solar gain can be managed through blinds, brise soleil and roof overhangs dependant on building orientation.

## **Materials**

Timber is the only truly renewable, recyclable and natural construction material and this is the principle material throughout our buildings. All timber components are sourced from well managed forests as standard, and can be supplied FSC or PEFC certified if required. Cabinco Ltd carry both PEFC and FSC Chain of Custody Certification.

Our standard specification uses either Siberian Larch or Western Red Cedar for the external cladding both species are naturally weather resistant. They do not require ongoing preservative treatment and will **still deliver a 60 year plus** lifetime. This ensures that you have a very long lasting and low maintenance finish to your building not only reducing maintenance costs but negating the use of chemicals or preservatives on site.

## **Off Site Manufacture**

Cabinco offer two construction systems, MPL and Kingspan TEK both of which are precision engineered in a factory environment. This ensures that materials are pre-cut to the specification for your building providing quality reassurance. A further benefit to the environment is that there is no automatic requirement for heavy site machinery or prolonged build periods – thereby reducing site CO2, noise, dust and general disruption. Ensuring that you have all the advantages of a clean safe build as well as the cost savings associated with shorter build times.

## **MPL**

Machine Profile Log Buildings – machined laminated log internal walling insulated and clad to the exterior. See technical pages.

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# Sustainability



## **Kingspan TEK**

Kingspan Structural Insulated Panels – plaster board and skim or timber clad to the interior, additional insulation and cladding to the exterior – See technical pages.

## **Site Waste**

Both construction systems, as a result of off-site manufacture ensure that there is minimal site waste. Cabinco also action effective Site Waste Management Plans to ensure materials are recycled/reused wherever possible. MPL sites have registered as little as 0.00028 tonnes of waste per square meter of build. Kingspan TEK system should provide similar results depending on internal finish.

## **Energy Efficiency**

**Insulation** – Our buildings are extremely well insulated as standard using high quality, proprietary products that have zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP). This high level of insulation ensures that minimal heat is lost through walls, floor and roof and therefore ensures you are not wasting energy and incurring high heating bills. Our U values are displayed on the Technical page, but typically will be 0.14 but can be less where required.

**Air Tightness** – The buildings are designed to have excellent air-tightness which is constantly being improved and already registering at  $3.2\text{m}^3/\text{hr}/\text{m}^2@50$  Pa (MPL). TEK system is expected to achieve  $1\text{m}^3/\text{hr}/\text{m}^2@50$  Pa or below due to the proprietary jointing system which is used.

**Lighting** – Low energy lighting systems are used throughout the buildings as standard. Our buildings are designed to make maximum use of Natural Daylight through large windows and use of roof lights and sun tunnels where possible. Cabinco recognise all the benefits this can provide both in terms of the occupants well-being and to further reduce your energy use and your carbon footprint. Excessive solar gain can be managed through blinds and roof overhangs.

**Heating** – Low energy heating systems are installed as standard, often based on the under floor heating system and air source heat pump but dependant on building usage and site conditions. Options exist for a wider range including Biomass, Solar and Ground source heat pumps.

**Windows and Doors** – are all factory pre-finished to a very high standard to reduce maintenance costs. They are all double glazed as standard with toughened or laminated glass used throughout. Another building component designed to reduce heat loss and wasted energy. Typical U values 1.4 on standard units although others are available.

**Carbon Positive** – By combining all the above standard features with a solar array, our buildings can easily become “Carbon Positive” meaning that you will generate more energy that you use.

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Cost Saving

Energy Saving

Labour Saving

Planet Saving

# Eco Classroom



The Concept of the Eco-Classroom has evolved as a result of the many enquiries from schools looking for sustainable classroom buildings which can meet demands for additional teaching space and provide quality learning areas which match today's ever tightening budgets.

Many schools had similar requirements, often just one classroom or two, and we felt that costs could be hugely reduced by providing a series of standardised modules from which to “pick and mix” the elements they required; with clear costing to enable informed choices to be made.

This should reduce the amount of valuable time the Head, Bursar or Governors need to invest in the process of selection and subsequent construction: giving them the ability to make choices and recommendations without waiting for quotations.

**A Sustainable Alternative  
to  
Modular Construction**

- Flexibility of Design
- Sustainable construction
- Energy efficiency
- Rapid Construction
- Clear Pricing
- Large windows with ample natural lighting
- Bi-fold doors
- Choice of finishes (internal and external)
- Turnkey package
- Options for additional sustainable features such as sedum roofing

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# Eco Classroom cont,



Designed to be constructed with our standard TEK build system and carry all those advantages with the following finishes;

## **Internal Finish**

Plasterboard and skim interior with white paintwork to all walls and ceiling; providing a surface which reflects light around the room. Options for timber finishes are available.

## **External Finish**

Hardwearing timber cladding material such as Siberian Larch which does not require preservative treatment. This reduces your maintenance commitment to the building and enhances longevity.

## **Floor Finish**

Pricing is based on wipe-clean, high quality Gerflor throughout or hardwearing carpet. A range of colour is Available.

## **Roof Finish**

We provide either a mono-pitch or standard pitch roof structure. Mono-pitch is provided with a “single ply membrane” finish, this hardwearing product is supplied with a 40 year manufacturer’s guarantee and is the perfect base for the sedum/wildflower covering. Pitched roof option is finished with a Metrotile which is a bitumen coated lightweight steel tile.

These are also hardwearing products supplied with a 45 year manufacturer’s guarantee.

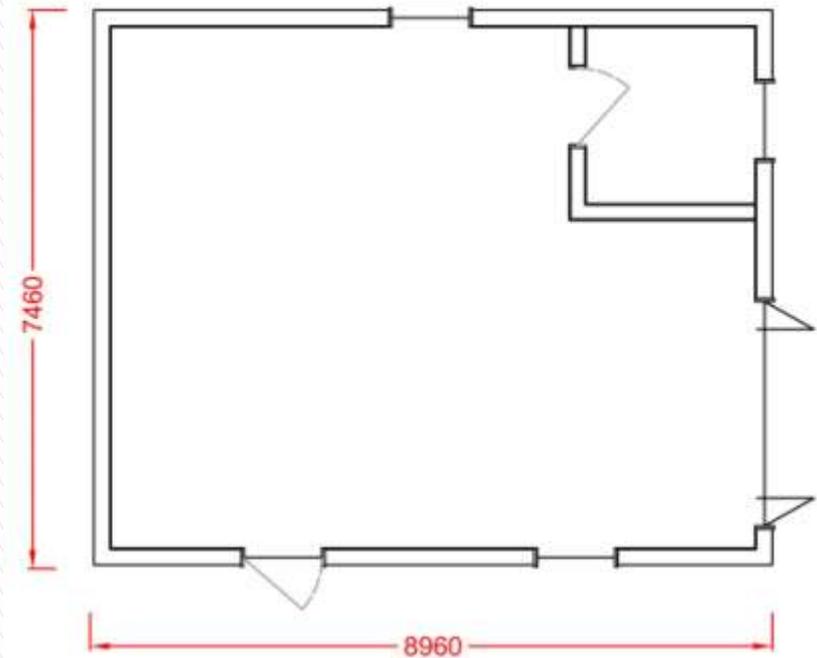
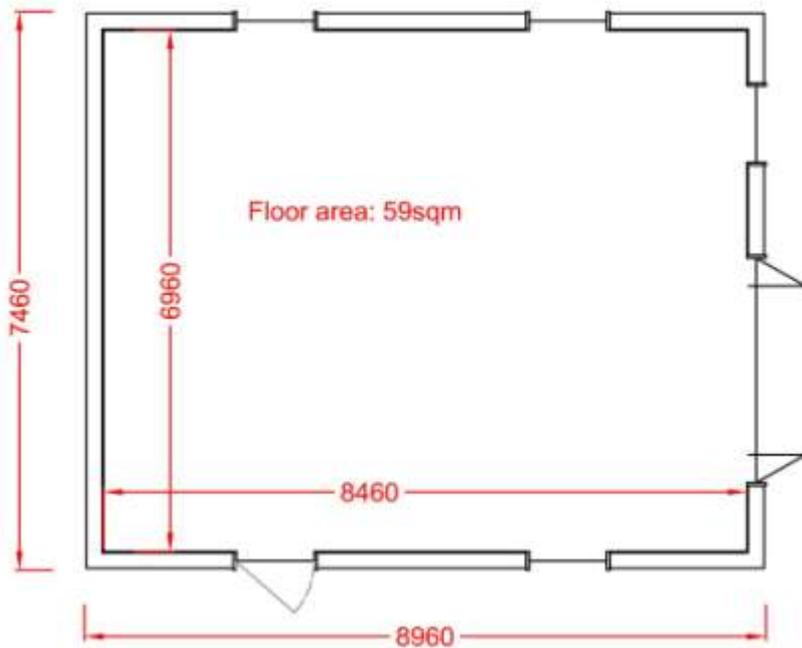
## **Foundations / Ground works**

These structures can be mounted onto a properly constructed car park. However, where foundations are required we suggest a budget figure of £8 – £10k to cover a single classroom block with W/C. Any site specific costs such as difficult access can also be clarified at the site inspection stage. This would be less in a block without plumbing.



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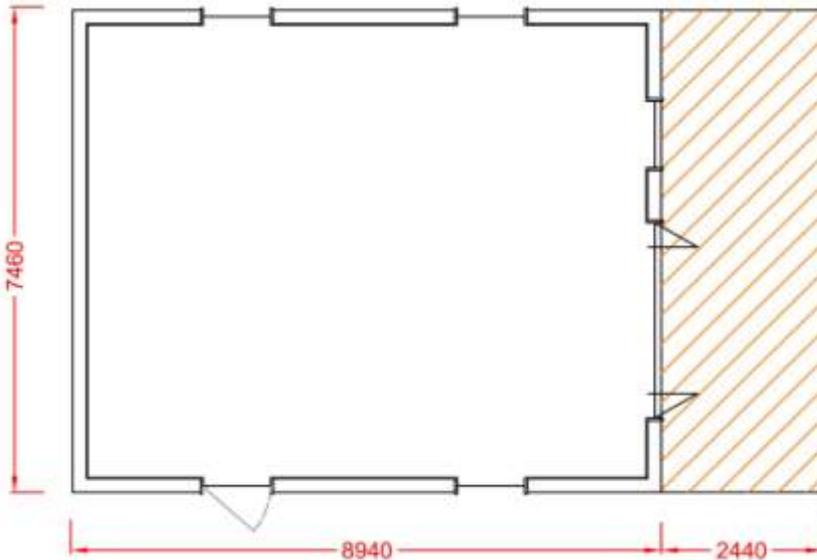
# Floor Plans – Single classroom



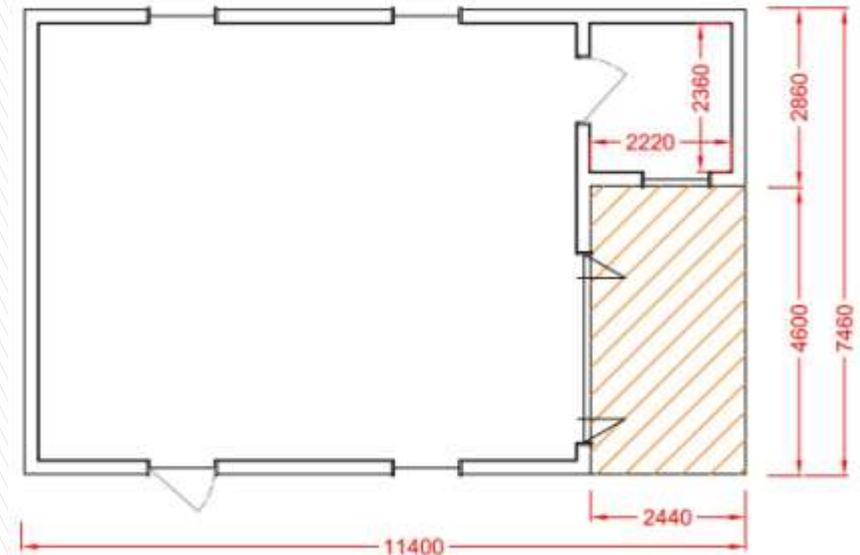
A single classroom providing 59m<sup>2</sup> of space and costing only £1,100 per m<sup>2</sup>. This includes all internal finishing including Gerflor flooring.

A single classroom with single accessible w.c. unit. Additional plumbing/drainage costs mean that the m<sup>2</sup> increases to £1,200m<sup>2</sup>

# Floor Plans – Single classroom



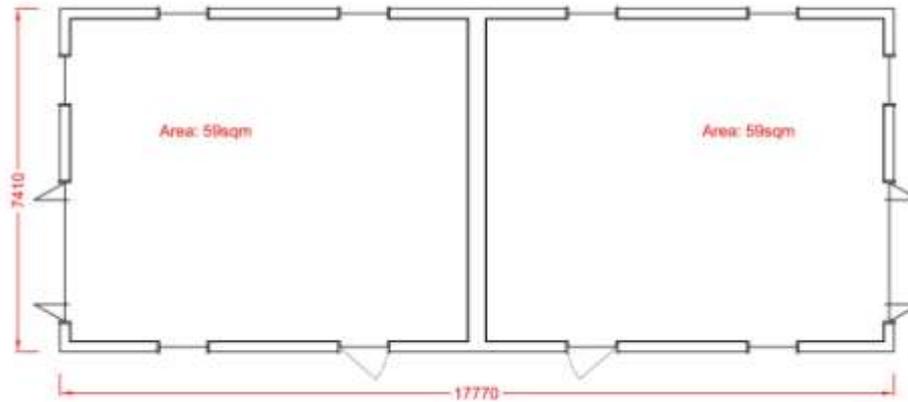
A single finished classroom with veranda to provide sheltered outdoor play area. £1,125m<sup>2</sup> cost.



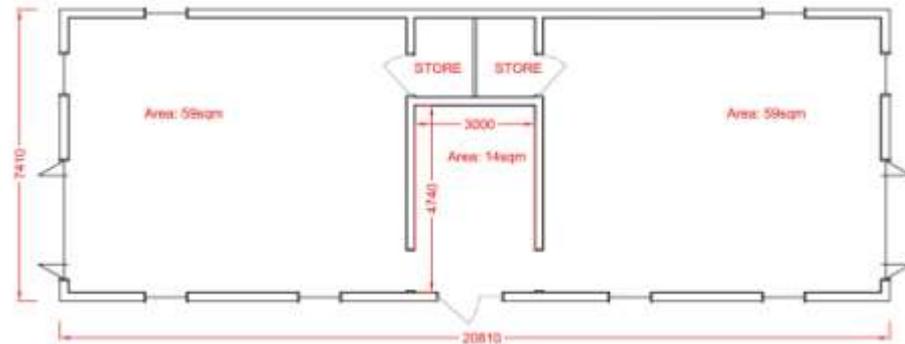
A single classroom with single accessible w.c. unit and veranda. Additional plumbing/drainage costs mean that the m<sup>2</sup> increases to £1,155m<sup>2</sup>



# Floor Plans – double classroom



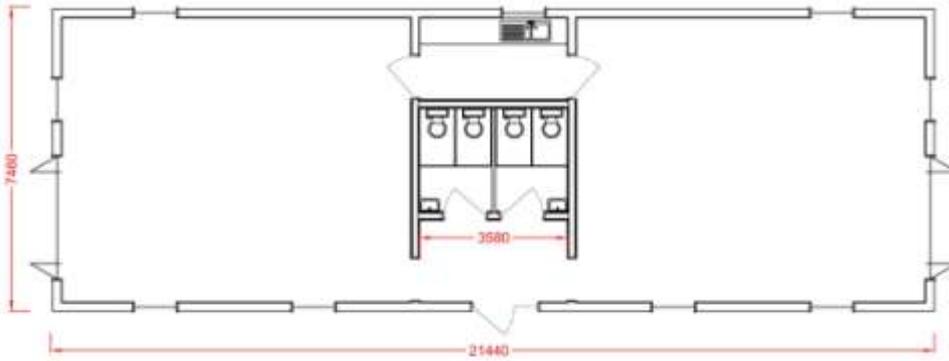
A double classroom block offering a highly economical space solution at just £1,000 m<sup>2</sup>



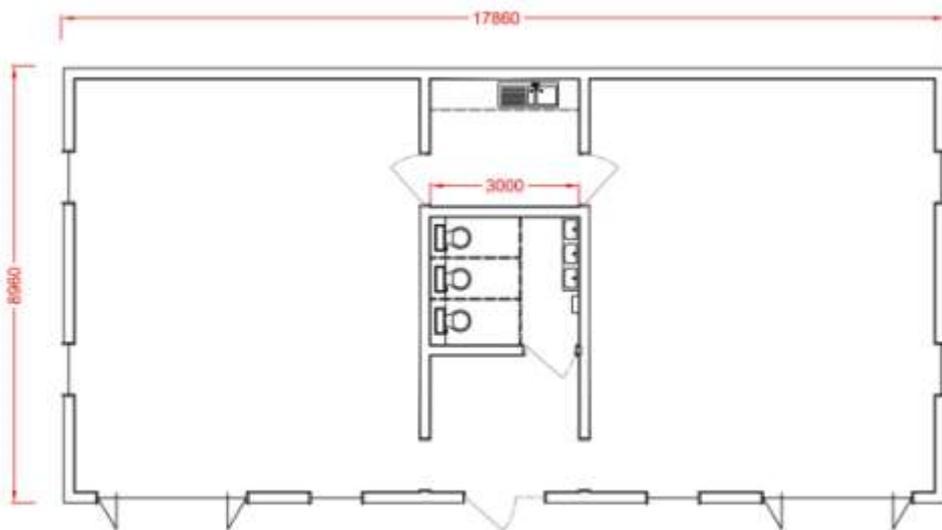
A double classroom with internal storage area. Providing highly economical space solution at just £1,050 m<sup>2</sup> cost.



# Floor Plans – double classroom



A double classroom block with internal m/f w.c or accessible w.c and central sink. To provide a highly economical space solution at just £1,125 m<sup>2</sup>



A double classroom with internal storage area. Providing highly economical space solution at just £1,125 m<sup>2</sup> cost.

# Flooring



We include a variety of flooring options normally a Gerflor Tarasafe (or equivalent) vinyl wipe clean finish. Colours can be chosen from a range we also offer a carpet alternative.

Sometimes a combination of the two is more appropriate to combine both practicality and comfort as shown in this image.

[Click here for more details](#)

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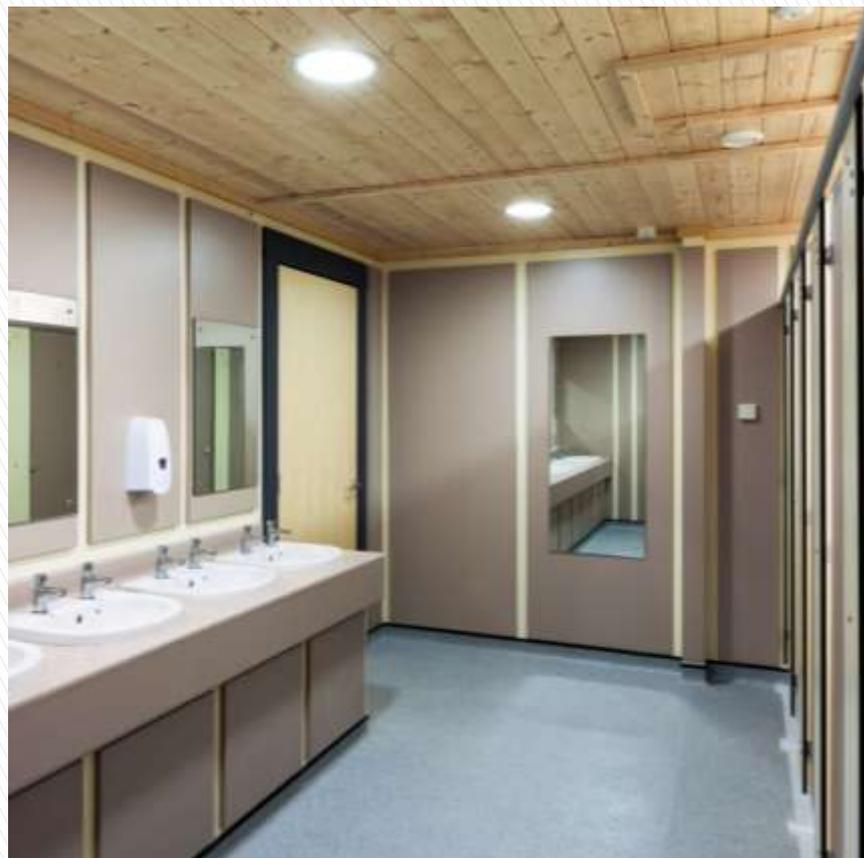


# Washrooms

Bathrooms and w.c s are panelled for hygiene and easy cleaning. All cubicles and vanity units included within the building package unless requested otherwise. A variety of colour and height options are available to suit different environments.

Our suppliers provide straightforward design combined with durable high-pressure laminate panels and stainless steel cubicle hardware.

Accessible w.c s provided with full Doc M pack



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# Veranda

Extending the building to provide a further decked area outside the building for additional seating or play space is a popular choice.

Where a covered veranda is chosen there are a range of roofing options although a transparent polycarbonate cover is popular to both protect from weather and allow light through.

Coloured polycarbonate or heat reflective options exist where appropriate.



# External Cladding



Most of our buildings are clad in a hardwearing and low maintenance timber. Either Western Red Cedar or Siberian Larch. Both offer excellent longevity (60 plus years) and do not require preservative treatment. This saves on maintenance costs and use of chemicals on site.

Being a natural, renewable, material this is a sustainable and environmentally sensitive cladding choice. FSC/PEFC chain of custody can be offered if required.

However – these buildings can be clad with a range of other materials including brick/stone/panels where this is suitable to the local environment.

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# Roofing

Cabinco offer a range of roofing finishes to suit the different roof designs as well as accommodate local planning preferences.

Our standard finishes include the Metrotile range of lightweight bitumen coated steel tiles which are provided with a choice of style and colour finishes and a 40 year guarantee. [click for more information](#)

We also offer a single ply torch on roofing finish which has a 20 year guarantee and is an ideal for mono pitch roofs or where looking to add a sedum or wildflower roof finish.

We can however also provide a full range of alternatives where required.





# Windows and Doors

## Doors

Superior Scandinavian Designed double glazed units

All doors are factory finished with a choice of colours to frames and trims

Fire doors where appropriate

Designed for part M access where applicable

## Windows

Superior Scandinavian Designed double glazed units

All windows pre-hung

Glazing All external windows and doors glazed  
Argon filled low "E" glass

All doors use toughened/laminated glass

All doors with manufacturers 5 year guarantee



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# Technical – MPL Walls and Floor



The buildings are designed to be built up from a structural ring beam of heavy section, Tanalith “E” treated, glue laminated timber. This makes them ideal for pile foundations, which will minimise time although most foundation types can be accommodated.

The structure is based on machine profiled log system (MPL), which includes all internal walls. MPL means that all components for the structural shell are manufactured to factory tolerances: to ensure an accurate and fast build. This shell is then insulated with minimum 125mm solid board and wrapped in a breather membrane, before being clad in 22mm Siberian Larch/Western Red Cedar\* to give a clean contemporary line.

*\* options available*

The floor cassette is integral with the ring beam, and comprises solid board insulation between infill joints decked with 22mm Finnish Spruce structural grade T&G plywood.

## Expected “U” values – Walls;

125mm insulation – up to 0.16

Overall wall thickness is 265mm

150mm insulation – up to 0.14

Overall wall thickness is 290mm

## Expected “U” values – Floor;

125mm insulation – at least 0.17  
(depending on floor covering)

150mm insulation – at least 0.14  
(depending on floor covering)

# Technical – TEK Walls and Floor

The buildings are constructed from factory made Kingspan Structural Insulated Panels. This slot together on site to create an air tight, insulated wall.

This shell is then insulated with minimum a further layer of 25mm solid board insulation, before being clad in 22mm Siberian Larch/Western Red Cedar\* to give a clean contemporary line.

*\* options available*

The roof structure can be mono pitch or pitch roof with options for feature trusses where required

Expected “U” values – Walls;  
up to 0.14

Expected “U” values – Floor;  
at least 0.14 (depending on floor covering)



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# Energy Solutions



Cabinco work with design partners who specialise in the planning, design, specification, installation, integration and commissioning of ground, air and water source heat pump systems, together with any associated solar thermal and heat distribution systems.

Our energy partners provide a range of specialist installation services particularly for renewable energy products including;

- Mechanical heating and ventilation systems
- Ground, air and water source heat pump systems
- Under floor heating and other radiant and low temperature heat distribution systems
- Integrated solar, thermal and bivalent systems
- Wood fuel heating system

Cabinco work closely with our specialist installers on the M&E (Mechanical and Electrical) part of the project to ensure that the lighting and ventilation compliments the heating method designated and vice versa.

Initially space heating will normally be provided by an appropriate air source heat pump however, as the technology evolves, the most energy efficient and cost efficient equipment available will be specified.

As well as the normal school plumbing, mechanical ventilation, low energy zoned lighting distribution, smoke fire and intruder alarms, we can extend works to cover;

- ▶ Rainwater harvesting
- ▶ CCTV
- ▶ Wireless or wired connections for AV, ITC and Voice (internet, Phone or TV)
- ▶ Induction loops
- ▶ Utilities and other services from the boundary or elsewhere on the new building



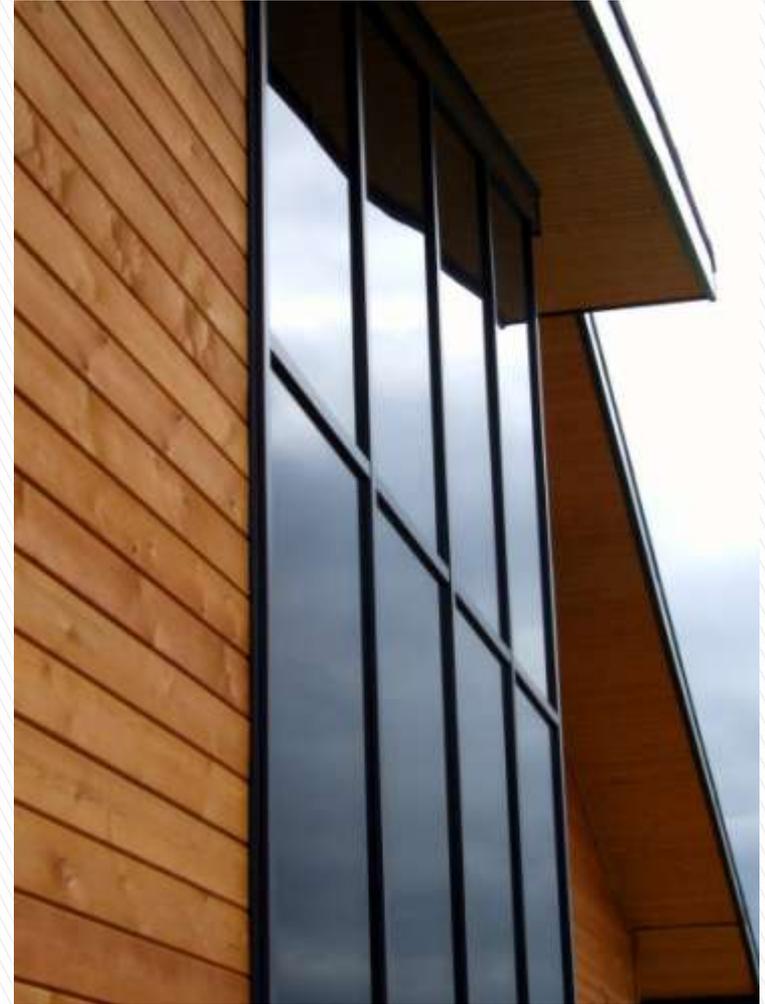
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# Design

All our buildings are individually designed. Cabinco believe this is vital for such a major investment as a new building. This is going to last a very long time and a “best fit” solution selected from a range of pre-determined designs should be avoided.

We can work with your architect or designer or provide an in house solution to ensure that you have a building specific to your business needs and that can accommodate both your current and your anticipated future needs.



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# Building Control



Cabinco are LABC partners. This means that our construction style is pre-approved and we can submit your Building Control applications and manage site checks by liaising directly with them on your behalf. This saves you both time and money on your project.

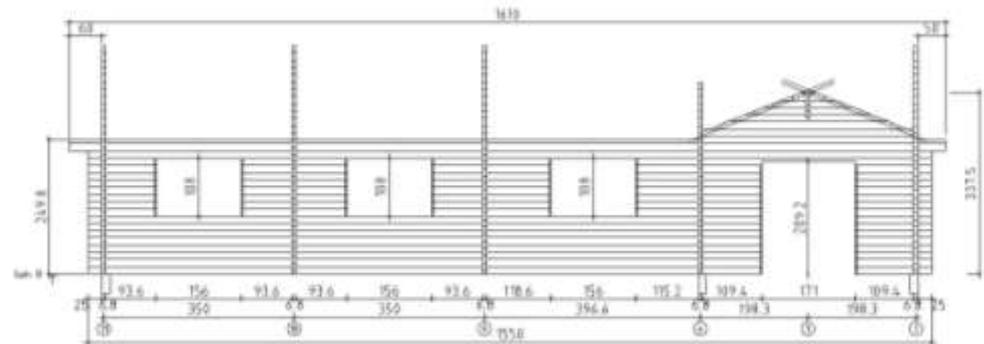


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# Planning Permission

Cabinco can either work with your own appointed consultant to submit planning applications or engage a local professional to handle on your behalf.



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