

# The benefits for academies of modular versus traditional buildings

## A brief guide



# The benefits for academies of modular versus traditional buildings - a brief guide

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# 1. Introduction

## Why have we created this guide?

Academies are finding it increasingly hard to meet a growing demand for classroom spaces, as well as improving or replacing dilapidated buildings that are not conducive to teaching and learning. Budgets are strained, space may be at a premium and the logistics of managing intrusive site works while pupils struggle to study are another challenge.

Sometimes it feels as if pupil outcomes risk being undermined if nothing is done, while conversely the disruption of a building programme could have a negative impact on their concentration, and the costs divert vital resources from the classroom.

In these difficult circumstances, the innovative technologies now used to create modular buildings have transformed the options for school leaders. High quality, energy efficient, quick to install and cheap to run, they can offer your pupils a brighter future.

The essential is choosing the right scheme and obtaining the necessary funding.

We hope this ebook will answer many of your questions.

## The Surveyors to Education Team



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## 2. What are modular buildings?

### Structures constructed using pre-fabricated units called modules

Modular buildings are temporary or permanent structures constructed using pre-fabricated units called modules. Modules can be connected end to end, side by side or in several storeys to make buildings of any scale or layout. They are manufactured off site and can be ready within weeks.

There have been dramatic changes over the years in the design and finish available, as well as the types of buildings to choose from. Today's modular school buildings create optimal learning environments that benefit pupils and teachers, with improved layout and plenty of natural daylight. They also benefit the environment thanks to reduced carbon emissions, while lower operational costs are a boost to school finances.

They can be faced in sleek wood, in bright colours or even rustic stone, making them an attractive and creative addition to the school estate.



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## 3. Dispelling popular myths

### Surely modular buildings aren't built to last?

Forget the damp, draughty temporary portacabins you may remember from decades gone by. Modern modular buildings can last for up to 60 years, with the same durability and quality as traditional buildings. They comply with the latest building regulations and planning requirements. Of course, if you only need them as an interim measure, that is fine too – they are quick and easy to remove if no longer needed.

### But aren't they ugly?

Again, times have changed and you will be able to choose between a variety of stylish designs whether you want a contemporary, fun or eco-friendly look. All built with innovative construction techniques providing maximum convenience and comfort.

### And don't they just come in one type?

The one-size-fits-all standard design is a thing of the past. The versatility of modern modular buildings means they can be customised in size, shape and configuration to suit your school's evolving needs.



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## 4. Why modular – the benefits

### Modular buildings offer outstanding benefits:

- Flexibility of design, finish and use
- Speed of construction
- Cost effectiveness
- Environmental benefits
- Energy efficiency



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## 4.1. Flexibility of design, finish and use

### Modular buildings can be expanded, reduced, reconfigured or moved!

Modular buildings can be single or multi-storey and configured as classrooms, theatre space, dining halls, sports facilities, for Specialist Education Needs, as multi-functional areas or more.

They can incorporate changing rooms, kitchens, storage cupboards and toilet facilities. Floor and wall coverings, external features and finishes can often be mixed and matched to provide the customised space you want.

They can be easily expanded, reduced, reconfigured or shifted to another site as your needs change to accommodate lower - or higher - birth-rate years, new music provision, blended learning ... the planned or the unexpected.

Another advantage is that modular buildings can be relocated or removed without invasive demolition work at any time.



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## 4.2. Speed of construction

### Ready within weeks

Teachers and students can be using their new modular building within weeks. A standard classroom block could be assembled on your site in just a few days. A bigger project with enough space for 100 children, might take five weeks to manufacture and eight weeks to put in place.

Manufacturers are able to deliver projects up to 70% faster than when using traditional construction methods. The key is that the foundations and groundworks are completed while the modules are being manufactured off site, saving precious time.

Weather delays are also eliminated as modules are constructed in factories or sheltered facilities so there is no need to down tools when bad weather strikes. When completed they are transported to the site by road then craned into position to produce a watertight structure.

Usually modules are fully fitted with all electrics, plumbing, heating and internal finishes before they reach your school.



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## 4.3. Cost effectiveness

### Cheaper to both build and run

Modular buildings are cost effective not just in terms of their build, but also when it comes to running costs, energy efficiency and low maintenance.

They can cost 10% less to build than traditional construction and are available to lease or buy.

It is advisable to seek specialist support from specialist educational Chartered Building Surveyors when deciding which option suits your school best.

Modular buildings can cost on average 76% less a year to maintain than traditional buildings thanks to ultra-low lifecycle costs: state-of-the-art energy-efficient heating and cooling can cost just £5/m<sup>2</sup> a year to run.

Smart energy-saving features such as time clocks, thermostatic controls and non-concussive taps will all help save money.



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## 4.4. Environmental impact

### Fewer emissions, less disruption and increased safety

Installing a modular building brings the advantages of a lower carbon footprint, fewer vehicles and less waste.

Factory-controlled manufacturing processes minimise the amount of energy required to create a building, while the energy-efficiency measures detailed on the next page can improve your school's eco-friendly credentials.

Construction traffic from trucks as well as labourers' and site managers' cars is drastically reduced – manufacturers have calculated by up to 90% – leading in turn to fewer emissions, less disruption and increased safety.

Off-site construction also generates up to 90% less waste than traditional on-site building methods.

Because construction teams are not on your site for many months there will be less packaging and general refuse to deal with.



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## 4.5. Energy efficiency

### Fully integrated smart energy management systems

Modular buildings are constructed with the latest smart energy-management technologies to reduce costs and carbon footprint.

These include:

- Premium insulation for walls, floors and ceilings to minimise heat loss.
- Doubled glazing with energy B-rated windows.
- Thermostatic controls for efficient temperature regulation.
- Motion-sensitive lighting so you are not wasting money when everyone has gone home.
- Integrated solar PV roofs that provide clean energy and can also generate income for your school.

**In all, the potential for an ideal working and studying environment.**



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## 5. How to fund your modular buildings

There are numerous funding sources and grants made available in England for academies, MATs and schools to access.

### Condition Improvement Funding (CIF)

An annual bidding round for academies and smaller MATs (with less than 5 academies or 3,000 pupils), addressing significant condition needs but also to support a small proportion of expansion projects. Academies are required to bid for funding before each year's deadline.

### Operating Leases

This is an alternative way to gain capital and is essentially a method of renting an asset for your school, academy or MAT over a short to medium term time frame. They are accessed via a bank or financial institution by putting together a business case for the capital expenditure required.

### Section 106

Schools looking to secure additional capital (to support local community services and social infrastructure) when housing growth places additional pressure on them, could be eligible for Section 106 or CIL funding.



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## 5. How to fund your modular buildings (cont.)

In addition, there a number of other options worth noting, such as:

### School Condition Allocation (SCA)

Funds are automatically granted to eligible MATs (with at least 5 academies and/or more than 3,000 pupils) to keep academy buildings in good condition. This includes funding for expansion, carrying out priority maintenance needs, keeping buildings safe and in good working order, tackling poor building condition and ensuring building compliance.

### Urgent Capital Support (UCF)

This fund is for academies and sixth-form colleges that do not have access to SCA, and are in need of assistance to address urgent building conditions issues. To qualify, these issues would need to either pose a safety threat to staff and pupils, or potentially result in the closure (or significant part) of the school.

### Devolved Formula Capital Funding (DFC)

Direct capital funding is calculated on a formulaic basis for academies and schools to maintain their buildings and grounds and fund small-scale capital projects. Local Authorities receive DFC payments and are required to pass on these allocations to the schools. Academy trusts receive their DFC allocation from the Department of Education.



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## 6. In summary

### Support in obtaining the funding you need

We hope this ebook has been a useful guide to the opportunities that modular buildings offer your school or academy, providing impressive fit-for-purpose space for optimum learning along with savings in cost, energy and CO2 emissions.

Surveyors to Education can support you in obtaining the funding you need, choosing the right design, and project managing construction and assembly.

We will partner with a manufacturer to deliver the best modular building for your needs, and we are proud to offer the most cost efficient, most environmentally friendly modular options on the market.

If you would like to discuss any of the information in this ebook or have any questions, please contact us either by phone on 01530 877 969 or email us on [enquire@s2e.org.uk](mailto:enquire@s2e.org.uk) and we will be delighted to help.

### The Surveyors to Education Team



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