

How to

Manage a Modular Building Project

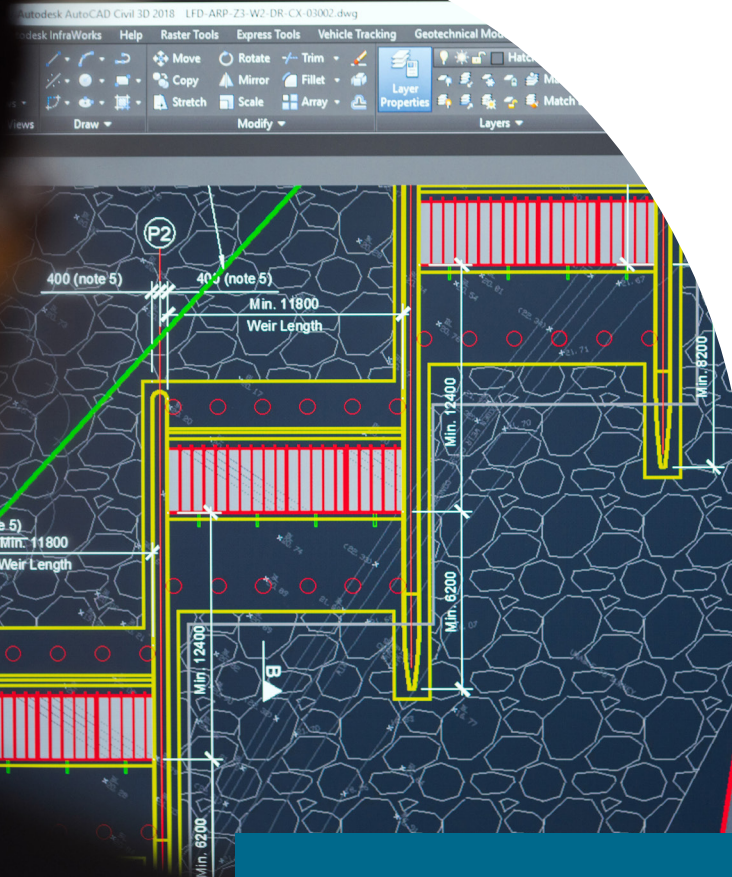
Whether you're a seasoned professional in sourcing modular buildings or you've been given the responsibility for the first time, there is a lot to consider to ensure your project runs smoothly and your end client users are satisfied with their new environment.

We've put together this guide to help ensure nothing fundamental gets overlooked and hopefully provide assurance that you're on the right track to delivering a quality project and personal success.



Solution Design Stage

- What is the building to be used for?
- How many people need to be accommodated? Health & Safety Executive (HSE) guidelines state that 11 cubic metres per person (including room height) is good practice for office environments.
- What types of rooms and how many of each type are required? For example, HSE guidelines state that two toilets and two handbasins are needed for up to 25 people.
- Specific industry standards adherence – e.g. Building Bulletins in the Education sector and Building Notes in Healthcare.
- Building Control approval requirements – including Building Regulations, particularly Part L (Conservation of Fuel & Power) Part B (Fire Safety) Part M (Access to and Use of Buildings) and Part F (Ventilation).
- Generic calculations can be used for temporary buildings used for less than two years and under 1000m².
- Buildings under 50m² are also exempt from Part L under Regulation 21.
- Note Part L requires project-specific calculations and an Energy Performance Certificate (EPC) for buildings sized over 1000m² and on site for longer than two years in order to gain Building Control approval.
- The client should be aware of its responsibilities under the current Construction Design & Management Regulations (2015).
- Your modular building provider should be able to manage the Building Control approval process for you.

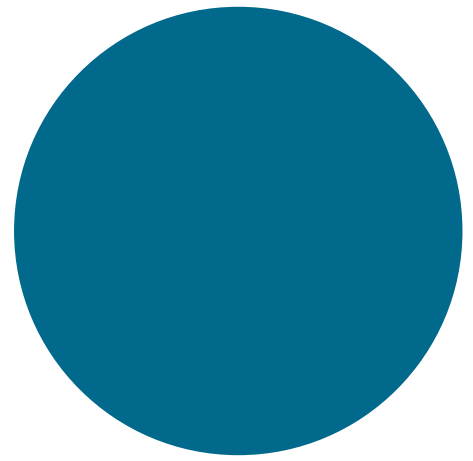


Pre-construction Stage

- **Planning** – Appoint the Principal Designer to lead the planning, managing and monitoring of Health & Safety during the pre-construction stage of the project. Algeco can do this for you.
- **Does the project require planning permission?** – Planning considers the impact on the local area and building aesthetics. All modular buildings need planning permission, unless they are on-site for less than 28 days. Construction site accommodation is classified as ancillary buildings, so are exempt from planning permission.
- **Has a planning permission application been submitted?** – Granting permission usually takes between 4–8 weeks. Your modular building provider should be able to manage the application for you.
- **Site investigations desktop research** – To mitigate risks, including Coal Mining, drainage and flood risk, radon gas monitoring and unexploded ordinance. This could indicate the need for further ground investigation, waste analysis, possible contamination and existing services survey reports.
- **Free site survey this can be with your modular building provider** – To check points raised by investigations, identify power and water sources, site access, best building orientation etc.
- **Type of groundworks required** – Specifications to accommodate the building's size, weight, point loadings etc.
- **Is Trackway needed to protect surfaces underneath?** – The weight of delivery vehicles can damage fragile top surfaces and low grade concrete.
- **The site survey** – This should also involve a crane representative to assess any access restrictions and health and safety considerations, including the size of crane needed to safely lift modules.
- **A survey checklist** – This should be completed and shared with all parties after the site visit.
- Check preparatory works and solution design changes needed identified from the site surveys.



Solution Installation Stage



Building structure and interior

- **Planning** – Appoint the Principal Contractor to lead the planning, managing and monitoring of Health & Safety during the construction stage of the project. Algeco can do this for you.
- **Prepare** – Site must be prepared with the health and safety of workers, clients and visitors top priority.
- **Site Security** – Fencing is required to close-off work in progress areas. Algeco offers fence hire as part of its site solutions.
- **Signage** – This is essential to highlight safety equipment requirements and potential hazard warnings.
- **Generators** – These may be needed to provide temporary power to site until services connections (electricity and water) are made.
- **Electricity and water service supplies** – Arrangements must be made with your local water and electricity companies to ensure the site and building is supplied. This is usually straightforward if your modular building is an addition or extension to existing buildings, more complex if it is a new 'greenfield' site.
- **Site welfare facilities** – Most projects will need on-site welfare facilities – toilets, washing and rest areas for building workers to use. Modular building providers normally offer these products as well. Self-powered units will be needed if services connections have not been established. Otherwise mains supplied units are fine.
- **Groundworks are required** – For modular buildings these are usually pad foundations that the modules rest on, prepared by a groundworks contractor. Your modular building provider should be able to manage this for you.
- **Transport movements** – Modules are delivered on HGV trucks, and are offloaded by a separate free-standing crane. Vehicle and crane movements are safety critical, so it's essential that pathways are unobstructed, large enough to accommodate the vehicles and non-essential staff kept well away. Movements must be supervised at all times.
- **Connections to services** – Once the building is fully installed and weather-proof, it will need to be connected to the electricity, water and drainage networks. Algeco can arrange this for you.
- **Equal access for all is vital** – Especially for public-use buildings. Your modular building provider should be able to offer a wide choice of ramps, steps and lifts, ensuring that your building complies with Building Regulations Document M – Access to and use of buildings.
- **Intruder & Fire alarms, CCTV equipment** – Prevention is better than cure, so your modular building supplier should offer a full range of alarm systems to deter break-ins and manage risk.
- **Disabled refuge areas and alarms** – Specific areas within buildings with minimum half hour fire resistance and to allow wheelchairs to manoeuvre safely, without impeding fire exits. Call for assistance alarms must be located in the refuge areas. Your building provider should be able to include these.



Solution Installation Stage

Internal environment

- **Wi-Fi & data access is the first requirement of a modern office environment** – Algeco can arrange network connections, to ensure connection happens at the right time, to avoid project delays.
- **Furniture will be required, most commonly computer workstations and suitable office chairs** – Algeco can hire these to you and delivered with your building, for maximum convenience.
- **Air Conditioning/Climate Control** – Specifying a climate control system is the most effective way to ensure a comfortable, productive environment all year round for all building occupants. Modern systems are also low-energy consumption, so are sustainable and affordable.
- **Kitchen equipment is needed for most office environments, so food and drinks can be prepared** – Your modular building provider will design the kitchen area and should be able to supply white goods too.
- **Commercial kitchens** – Some large projects or specific applications (e.g. schools) may require full commercial kitchens to provide large numbers of hot meals. Algeco can supply commercial kitchen equipment for you.
- **Washroom consumables** – Modular buildings normally have toilet facilities for users, with consumables (hand wash, air freshener, paper towel) dispensers. Buildings on hire contracts offer a consumables refill service.
- **COVID-19** – Since the pandemic outbreak, your modular building supplier should offer you COVID-19 hygiene solutions, including desk screens, PPE and hand sanitisers.
- **Fire-fighting equipment** – In the unlikely event of a fire occurring, you will need fire-fighting equipment. Your modular building provider should offer fire extinguishers & blankets to store in the building.
- **Conserving energy** – Buildings account for 45% of UK carbon emissions. Reducing energy consumption is important in lowering this figure to be more sustainable. Lights in contemporary modular buildings should be LED and have PIR sensors detecting movement, so they automatically turn off when the space is not in use.
- **Energy-saving heaters** – Wireless control and timers are beneficial, so heaters can be programmed to turn off when rooms aren't in use.
- **Conserving water** – Non-concussive taps, that turn off automatically, are preferred to use less water, along with waterless urinals. Thermostatic taps fix the water temperature at a safe level, usually around 40°C, which also consumes less energy in heating water to higher temperatures.

