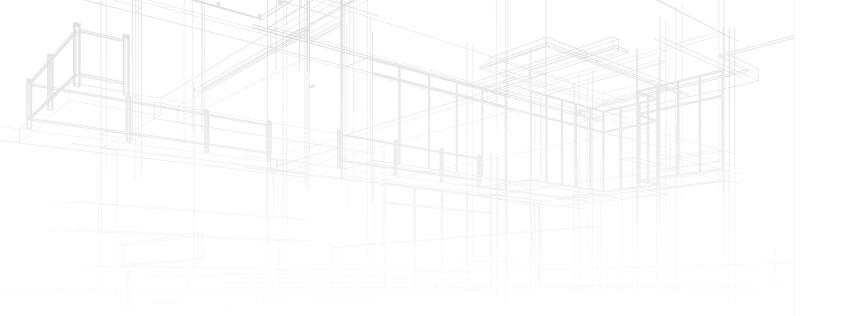


- What is Modular Construction?
- The Key Benefits
- Risk Mitigation for Developers
- Mortgage Viability





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What is Modular Construction?

Modular construction (sometimes called volumetric construction) involves buildings made of components manufactured on assembly lines in factories, rather than onsite. Buildings are constructed using modular 'parts' such as walls, doors, ceilings, and windows, or a number of complete prefabricated units.



1837

The first on-record example of modular buildings is in 1837. This was designed and built by a London-based carpenter named Henry Manning. After creation, it was delivered to Australia. They became popular and the industry started to grow.



1940 - 1960

Modular building became popular in the UK after World War II, where temporary 'prefab' homes helped solve the UK's critical post-war housing shortage.

However, being less visually appealing than traditional buildings, and often kept in use for decades beyond their intended lifespan, they fell out of favour as times and tastes changed.



Present Day/2000s

More recently, modular construction has enjoyed a resurgence. Today's modular builds are not only aesthetically pleasing, but are more durable and with high build quality, driven by improved regulatory standards as well as new materials and technology.

The post-pandemic world is increasingly embracing modular construction methods in response to labour shortages, higher customer demand and sustainability and environmental considerations.

What are the Advantages of Modular Construction?

Perhaps the greatest advantage is the speed of the process. A factory-based construction process can take place simultaneously with onsite ground works, dramatically shortening the construction schedule, minimising weather delays and ensuring projects reach completion faster. Shorter construction schedules also mean lower site overheads, such as equipment hire and site staff. There's a social benefit to less time spent onsite too, with less disruption and noise for local residents. And in an industry where time costs money, factory-controlled production can also lead to buildings being occupied sooner, creating a faster return on investment.

Quality Control, Safety and Sustainability

Another critical advantage of modular construction is the improved quality control and safety that comes with the factory process, including production line repetition, tight inspection standards and a controlled location. As well as reducing the risk of construction site-related accidents, stricter quality control should lead to improved building standards and efficiency relating to issues such as air quality and heat loss. Modular construction is also considerably 'greener' from a sustainability perspective. Factory-controlled processes result in less wastage, and greater reuse of materials, leading to lower carbon emissions. This, in turn, generates further cost savings and improved environmental credentials.



What are the Risks?

As property lenders, while we recognise the benefits of modular construction, we think it's essential that developers also understand some of the risks involved which we would consider before agreeing funding.

What Risks Should Developers be Aware of?

At present, compared to traditional main contractors there are relatively few modular contractors operating in the market. This means there is a limited number of companies that can step up in the case of supplier failure, and a greater risk that contractor insolvency means the entire project will have to be discarded and the site cleared.

To help mitigate this risk, modular contracts should be carefully reviewed for project risk. Early engagement is vital; traditional procurement routes and standard form building contracts are not designed for modular builds, so developers must consider – and plan for – unique risks early on. This should include what would happen if the delivery of key components is delayed, or the manufacturer goes into liquidation.



Advanced payments and consideration of additional security that may be required



Works programme, precise scheduling and transportation



Enhanced due diligence on the modular construction company





Undertaking Enhanced Due Diligence

The credentials of the modular construction company should be studied carefully in advance to ensure liquidation risk is minimised, taking into account expertise, experience, and trading accounts. Contingency modelling could be used to understand the cost of converting to a traditional build should the modular contractor fail.

UK-based modular construction factories should be prioritised, to ensure UK regulatory standards are adhered to and factory visits are possible. This would also maximise the potential recovery in the event of failure. Where overseas firms are used, the contractor should have experience of delivering projects in the UK, and of building modules to British standards. Also, as the lender, we would appoint a Monitoring Surveyor that, as part of a technology assessment, would assess the likelihood of other firms being able to step in should the manufacturer fail. Developers may also choose to appoint a quantity surveyor, and should also confirm where the module manufacture will take place, to ensure regular inspection at the factory is possible. Developers can insist on a clause preventing relocation of manufacture, as well as a right to inspect during transportation.



Added Security over Advanced Payments

Advancing funds to modular contractors to pay for offsite work will likely raise specific title and risk questions. In normal builds, the lender releases funds to add value to a site over which they have security.

However, for a modular construction, advance payments that pay for the offsite construction work do not initially increase the value of the development, meaning additional security will be required. For example, vesting certificates can be used to help mitigate the risk of paying up-front for materials. The building contract should provide detail on how and when vesting certificates are to be provided. Where the modular contractor is a sub-contractor, the developer should ensure that title is passed up the chain (i.e., vesting from sub-contractor to contractor, then contractor to developer/funder).

Performance bonds can also be considered. These provide insurance-backed cover for up to 10% of the contract sum should the main contractor enter into liquidation.

This cover should assist with recouping monies already advanced, although some developers may find the costs of the bonds themselves to be prohibitive.

Precise Scheduling and Transportation

With the majority of modular construction components arriving simultaneously, precise scheduling that minimises delays and disruption is critical. The following mitigations should be considered:



Contract and construction schedule review

All parties should agree the design pre-manufacture, with substructures complete, and craneage and scaffolding in place, before modular elements arrive onsite. As a lender, we would make sure contracts are reviewed by legal and monitoring advisors to determine where liability falls in the case of scheduling issues.



Insurance

Insurance is often a lending requirement, because while traditional performance security allows access to money, it does not remedy delays caused to the project. Insurance products such as delay in start-up insurance could pay out to cover the developer's debt repayments until the project is completed.



Transportation

The contract should pass the risk of damage during transportation back to the modular contractor, as without it, responsibility rests with the developer.

Main Contractor Risk and Contract Exclusions

Modular components remove the need for many traditional trades, but it is important to be aware of any gaps between what the modular manufacturer will provide and what is agreed with the onsite contractor. Because the modular contractor is not onsite, main contractors may seek to minimise their exposure. The value of the modules will often significantly exceed the value of the main contractor's onsite works, therefore, the main contractor will be keen to limit their liability.

For example, they may be unlikely to accept a liquidated damages clause for any delays caused by the modular contractor.

Further contract exclusions might include site preparation, scaffolding and cladding, as well as permits, licences and structural warranty management.

Exit and Mortgage Viability

The valuation of modular developments does not substantially differ from a traditional build and can be delivered by any valuer. The key factor is ensuring the property will be suitable security for mortgage purposes, including a suitable new build warranty. It is important to consider the aesthetics of the build at the design stage, as some valuers may reduce the gross development value if the appearance is too explicitly modular.



However, at present, many mainstream lenders don't provide development funding for modular builds as they need greater assurance the finished homes will be eligible for a mortgage with a high street lender. This is why it makes sense for developers to talk to specialist lenders such as Blackfinch Property. Barriers to 'mortgageability' remain the barriers that affect broader concerns around modern methods of construction: quality, lifespan and maintenance. For example:

BOPAS (Buildoffsite Property Assurance Scheme) accreditation backed by a home warranty scheme is seen by most lenders as a pre-requisite to a mortgage. The good news is that BOPAS is increasingly available for modular builds. While BOPAS accreditation on a property offers reassurance that it will be readily mortgageable for at least 60 years, it does not mean all components of an offsite modular build will have a 60-year design life. It is, therefore, important to clarify whether the identified modular firm has achieved BOPAS accreditation for previous schemes.

The availability of building warranties for new offsite manufacturers is a developing area. However, there is often a risk that carrying out works to the modular units after the building is complete will void the warranty. Ideally, this needs to be clarified with the proposed warranty provider as soon as possible.

Greater Scrutiny of Traditional Forms of Security

Developers should review traditional forms of security, as they may not be appropriate for modular construction projects. Take insurance for example. Standard policies may not cover modular construction, so it is worth determining / that modules are insured at the factory, as well as during transportation and onsite. Structural defects insurance needs to explicitly cover modular builds.

Summary

Modular builds can be a costeffective, fast and sustainable option for developers, at a time when the world needs more innovative and environmentallyfriendly construction methods.

However, it's essential that both developers and lenders understand the ways in which modular builds differ from more traditional forms of construction, and to carry out the necessary checks and balances to help mitigate those risks.



