



MODULAR CONSTRUCTION

Improving the Way the World Builds





BUILDING CERTAINTY

WHAT IS MODULAR CONSTRUCTION?

Compared to other industries, conventional construction is lagging in its ability to solve its historic challenges (waste management, cost overruns, schedule delays, etc.) with new technology. Modular construction, quite simply stated, is a better way to build. Leveraging best practices from the manufacturing industry, modular construction is redefining how buildings are built, bringing progress to an industry that has not seen significant technological advances since the introduction of drywall more than 100 years ago.

Powered by manufacturing technology excellence, modular construction is a building technique

where each module is fabricated in a temperature-controlled factory while the site is being prepared for installation. Once the modules are ready, they are transported to site, set on the foundation footprint by crane, and joined together like building blocks to make one integrated building.

The technique uses the same materials as conventional construction and designs to the same codes and standards, while saving up to 50 per cent of the time. When finished, the structure is indistinguishable from conventional construction methods.

MYTHS ABOUT MODULAR

As it becomes more mainstream, several myths have developed around the use of modular construction.

Myth #1: Modular is unproven and new... I don't want to risk it.

Fact: While the first ever recorded modular building appeared in 1837, it is still a relatively new form of building, particularly in North America. Old habits can die hard; however, there are systemic issues in conventional construction, like a profound shortage in skilled trades, which make the benefits of modular construction the obvious solution. With modular, you are only changing the process – the building materials remain the same.

Myth #2: Modular is not aesthetically pleasing. It will limit my design vision.

Fact: Modular construction has come a long way since the 1900's where you could buy a modular home "kit" from Sears & Roebuck. The design options were limited then, but that is not the case today. Many buildings that have been built with modular are indistinguishable from the conventional "stick-built" method! From office buildings to high end homes to hotels to hospitals, the design appeal with modular is not a barrier. The key is in the planning, so engage with us early on to speak about your design vision.

Myth #3: Modular isn't right for my industry. My needs are too unique.

Fact: From retail operations to housing complexes. Office headquarters to health centres and hospitals. Hotels to self-contained classroom blocks. Modular building solutions are the right choice for your project. With an endless array of possibilities, the industry applications are limitless.

Myth #4: Modular has lesser quality standards than conventional builds.

Fact: With the modules being built with the same materials as conventional construction, quality is not an issue. Our fabrication facilities have incredibly high QA/QC standards, with regular, independent inspection and testing protocols. Modules are fabricated in a climate-controlled, state-of-the-art factory which minimizes exposure to weather and on-site damage. Buildings constructed by conventional stick-built methods can suffer serious quality issues post-completion because of long periods of exposure to the elements. They are also prone to project delays and budget overruns due to weather.





BENEFITS OF MODULAR

GAIN PEACE OF MIND ON YOUR NEXT PROJECT

Modular construction follows a versatile model that creates a stress-free customer experience and creates significant inherent improvements over site-built construction methods by manufacturing off-site:

Timetable Reduction

Manufacturing occurs in factory-controlled environment at the same time as foundational work on the eventual site, meaning the overall project time can be reduced by up to 50%.

Cost Certainty

Costs remain on track as the causes of time delays that plague conventional construction, like inclement weather, minimal trade availability, accident damage or theft, are virtually eliminated.

Superior Quality

Modular projects are subject to stringent internal quality assurance and control processes, which are confirmed by on-site third-party inspectors.

Sustainability

The lean modular construction process cuts down significantly on waste and improves efficiencies. Having the bulk of construction completed off-site also makes for a smaller footprint on site, with less noise, dust and vehicle traffic.

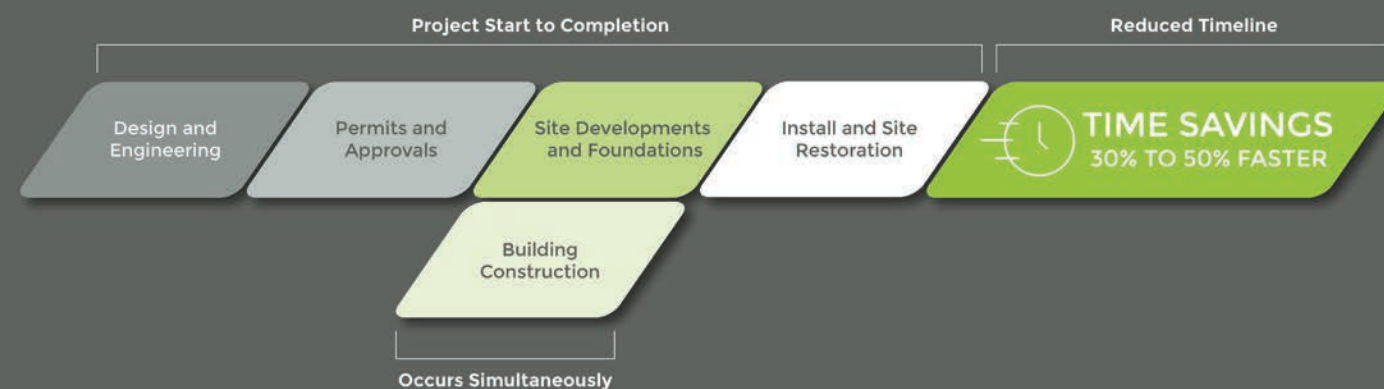
Safety

The indoor manufacturing environment that makes modular construction unique also creates stronger, healthier structures. Many of the indoor air quality issues identified in new site-built construction result from high moisture levels in the framing materials. Using dry materials in an indoor setting, the potential is substantially reduced for high levels of moisture to be trapped in the materials. The modules are also built strong enough to withstand craning and built with double walls and ceilings to provide better sound proofing between units.



BUILD FASTER AND IMPROVE YOUR ROI

MODULAR CONSTRUCTION SCHEDULE



SITE BUILT SCHEDULE





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SEAMLESS EXECUTION

THE POWER OF COLLABORATION

Modular construction has critical differences from site-built construction in its building process – particularly in the pre-construction stages. Getting the most from your modular project requires different thinking and coordination.

A modular building expert like NRB Modular Solutions can help guide the project development during the planning and design phases. This will help you meet best practices for building offsite with modular and achieve your desired schedule and budget outcomes.

An integrated design approach is key early on to ensure all the disciplines converge to take care of coordination between the unique structural requirements of modular and other areas such as mechanical and electrical. The size and configuration of modules are important as they must fit site access requirements and transportation regulations. Module sizes and layouts also determine the foundation size and layout.

We recommend organizing a cross-functional project team ‘horizontally’ rather than ‘vertically’. In conventional construction, information tends to flow from the top (owner/architect) to the bottom (construction company) and a lot can get lost in translation. Modular requires a focus on enabling all parties to communicate with each other to ensure the effective flow of information between all members of the team. This leads to project efficiency, effectiveness and creative solutions to any challenges that come our way.

From the architectural, design and engineering stage through to manufacturing, transportation and logistics, to the final installation and commissioning, our team of project managers at NRB are available to build collaboratively with you. With manufacturing facilities located in Ontario, British Columbia and Alberta, we can take on projects of unlimited scale and complexity on aggressive timelines.



NRB
MODULAR
SOLUTIONS



Our unique end-to-end, technology-driven approach to modular building solutions ensures unmatched certainty and value. Our customers look to us to build their spaces with speed, quality, safety, environmental sustainability and cost effectiveness in mind. We are NRB, the next revolution in building.



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