

What is off-site construction?

Off-site construction means the planning, designing, fabrication, and assembly of the majority of a building's elements at a place other than the building's final location, to enable rapid and highly efficient construction.

Off-site construction is ideal for a variety of building and construction types, including education, residential, health care, office, retail, hospitality and government.



Off-site construction differs from traditional building methods: the process is not linear, where each step is constructed entirely on site, and the steps don't need to be completed before the next one can begin. Off-site construction is also not dependent on good weather for its completion.

Off-site construction is characterized by a much more integrated planning and supply chain, which makes for improved efficiency, greater certainty and lowered costs across the whole of the project.

Off-site building is naturally forward looking and innovative. It generally includes a range of materials, scales and systems, uses new digital software, and up-to-date methods of manufacture and fabrication.



Every part of the construction is designed specifically for the building, and is created using standardised, monitored equipment overseen at every stage of the fabrication by experts.

Each part of the building is tested before it leaves the factory, which ensures safety and quality.

Construction times can be as much as 60 percent faster than traditional on-site construction.

The closely monitored and standardised factory conditions in which building components are produced provides an extremely safe environment, with every aspect of the work space covered by stringent health and safety checks and tests.

Benefits in health and safety for offsite constructions include less time spent working at height, dangers which result in nearly 55 percent of all fatal injuries in the sector, and a nearly 80 percent reduction in the chance of workers being harmed by dangerous tools and machines onsite.

There is also a reduction of time spent in environments that are at risk of weather-related issues based calamities such as high winds and flooding.

Early decisions on the design and implementation of a building result in lower factory transport and assemblage costs, as materials are pre-budgeted, sourced and produced specifically for the project at hand. There is also a huge percentage reduction in material waste.

The sustainable and eco-friendly approach to offsite construction, with its improved efficiency and safety record all contribute to a more cost effective solution for project managers. Off-site construction sustainability benefits, beyond the materials themselves, include a smaller work force and with fewer vehicles required brings a reduction in manpower and fuel costs.



Overall, off-site construction is cheaper, better integrated, faster, safer and better for the environment.