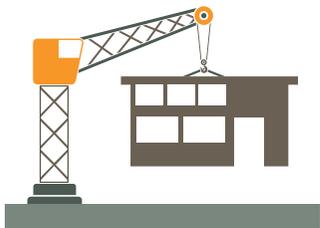




Worked with Eco-modular just 1.7 miles up the road



Prefabricated modules were delivered complete to site



Operatives were able to work inside a water tight building quickly

CASE STUDY: NEASDEN PRIMARY SCHOOL

A fully pre-fabricated modular build, the Neasden Primary School houses 280 pupils and a 26 place nursery. The project required demolition of the previous school and the construction of a new 1,598m² building, which took just ten days to erect on-site.

SUSTAINABLE DESIGN

Located on a challenging site, the Neasden Primary School project lent itself to a different way of thinking. The narrow access and close proximity to dwellings, coupled with a live school environment, gave BAM a great opportunity to test the benefits of prefabricated methods of construction.

The prefabricated nature of the build proved to have many benefits. When bats were discovered in one of the old school buildings that required demolition, the off-site manufacture of the modules continued while the demolition had to remain on hold until the end of the bat breeding season. Because the off-site superstructure works could continue in the factory while our on-site team reprogrammed the substructure works, we averted a potential delay of ten weeks.

Once the substructure works were completed, the building was delivered to site in 63 sections. The whole school was completed on-site in just 12 weeks, with the prefabricated building pods being put together in just ten days.

SOURCING RESPONSIBLY

We were able to work with the local firm Eco Modular, just 1.7 miles away to produce the modules for the build, helping to reduce our CO2 emissions from transport.

100% of the timber was sourced from legal and sustainable sources.

RESOURCE EFFICIENCY

The light-weight structure of the modular building meant a shallower pad foundation could be used, eliminating the need for deep, piled foundations and reducing waste. Timber battens were reused as cladding rails and the timber used in the transportation of the modular pods was sent back to the local manufacturer for reuse. The old demolished school buildings were recycled for use as fill on site.

The prefabricated approach to the building reduced construction waste and the Eco Modular team also took a lean approach. Each prefabricated section came complete to site with all toilets, cubicles, doors, windows and cladding rails in place, with some interior walls pre-painted. They also took a lean approach to finishing the building. As each module was put in place joints were filled and skimmed and the rooms were painted. External cladding was then fitted to ensure consistency and quality to the exterior of the building.

HEALTH AND WELLBEING

The module build process was quick, so operatives were able to work inside a fully water tight building within a very short time-frame, removing them from the elements.

'COLLABORATION BETWEEN THE PRIORITY SCHOOL BUILDING PROGRAMME, SCHOOL, BAM AND ECO-MODULAR HAS ENABLED THIS BUILD TO DELIVER ALL THE ADVANTAGES OF AN OFF-SITE CONSTRUCTION METHOD WHILST ALSO MEETING ALL OF THE EXACTING TECHNICAL REQUIREMENTS'

Paul Clegg, Project Director, Priority School Building Programme



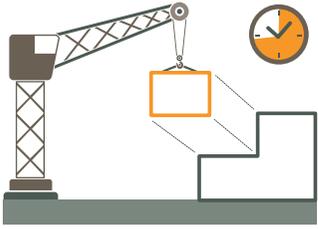
Completed: July 2016

Architects: Bond Bryan Architects Ltd

Prefabricated modular manufacturers: Eco Modular Buildings

Quantity surveyor: EC Harris

Structural Engineer: BAM Design



The prefabricated design help reduce nuisance



15 new bat boxes installed

The pre-fabricated nature of the build also reduced the health and safety risks on-site by limiting on-site construction activities.

COMMUNITY

Constructing the modular school in just 12 weeks meant we were able to reduce disturbance to the site's neighbours and we kept them up-to-date throughout the process using regular newsletters. We were also able to show the school's PTA around the building early on in the project, giving them a greater understanding of the project and to see the school before the children moved in!

ECOLOGY

Over 300 Pipistrelle bats were found living and breeding in one of the existing school buildings. We worked with specialist bat surveyors to monitor the bats and ensure demolition only took place after the breeding season finished. Once the bats had left the building we undertook a controlled demolition, removing some of the roof by hand. We have installed ten new bat boxes on the building and five in the surrounding trees to create alternative nesting sites for them.

