

New initiatives in constructing HDB projects

Pre-fabricated bathroom units (PBUs) will become a staple method in the construction of HDB projects from 2019. Other methods, like the pre-fabricated pre-finished volumetric construction (PPVC), will also be implemented to boost productivity, enhance safety and provide better construction quality on a larger scale.

WHERE CONSTRUCTION IS GOING

1980s

- HDB adopted precast technology in construction

2017

- Today, up to 70 per cent of a typical HDB block's concrete structure is constructed using the pre-fabrication method

2019

- All newly launched HDB flats will be fitted with PBUs

- HDB will implement concrete PPVC method in 35 per cent of its projects

2020

- HDB hopes to achieve a productivity improvement of 25 per cent from 2010 levels



Pre-fabricated bathroom units (PBUs)

By 2019, all newly launched HDB flats will be fitted with bathroom units pre-assembled off-site. Installed with finishes, PBUs will be transported to the worksite, and hoisted onto the blocks for installation.



PBUs, seen here at a site in Bukit Batok, can be assembled off-site. The shells of these units are lined up and prepared for further finishings.



The PBUs are completed with finishes such as copper piping (inset), partial tiling, window frames and a waterproofing system.



They are then transported to the worksite and hoisted onto the blocks for installation.

Pre-fabricated pre-finished volumetric construction (PPVC)

- This method involves constructing and assembling 3-D pre-fabricated modular units with finishes in a controlled factory environment before being transported to the construction site for installation.
- By 2019 HDB will implement this method in 35 per cent of its projects.
- The PPVC method of construction was piloted in Valley Spring @ Yishun (right), where construction for 824 Build-To-Order units started in March this year.



BENEFITS OF OFF-SITE CONSTRUCTION

- **Higher efficiency** Off-site works minimises wastage of materials.
- **Reduced need for manpower on-site and better site safety** Fewer workers are required on-site, thereby improving overall site safety.
- **Better construction quality** Construction in a factory environment offers more uniform and better-quality workmanship.
- **Reduced impact on environment** With part of the finishes done off-site, less noise and dust are generated at construction sites.