Annex A

Prefabricated Prefinished Volumetric Construction (PPVC)

1. PPVC refers to a construction method whereby 3-dimensional modules are completed with internal finishes, fixtures and fittings in an off-site manufacturing facility before it is delivered and installed on-site.

2. The key benefits of PPVC include:

a) Improved Productivity

PPVC can potentially achieve productivity improvement up to 40% in terms of manpower and time savings, depending on the complexity of the projects.

b) Better Construction Environment

As bulk of the installation activities and manpower are moved off-site to a factory-controlled environment, it can minimise dust and noise pollution and improve site safety.

c) Improved Quality Control

Off-site fabrication can result in better quality end products through quality control in a factory-like environment.
Advanced Precast Concrete System (APCS)

1. APCS refers to a construction method that adopts large precast concrete (PC) components and/or the use of mechanical connection systems to join two or more PC components under the ‘3S’ principles of Standardisation, Simplicity and Single Integrated elements.

   Examples of the features are illustrated in the image below:

2. The key benefits of APCS include:

   a) Ease of on-site assembly

   Simplified structural design and connections made it easier for precast concrete components to be assembled on-site.

   b) Improved productivity

   Reduced need for concreting work on-site which can lead to productivity improvement of up to 20% in terms of manpower and time savings.

   c) Improved Quality Control

   Wider adoption of automation and having precast concrete components manufactured in a controlled factory environment allows for better precision and quality standards.