

Annex

Background on HDB's Construction Productivity Efforts

HDB has strived to improve construction productivity over the years through its commitment to trialling and innovating new technologies. HDB has also invested in research and development and continued to refine the technology over the years to suit Singapore's public housing needs. HDB's push to ramp up construction productivity started as early as 1980s when we adopted the use of prefabrication and precast technology. Today, up to 70% of a typical HDB block's concrete structure is constructed using the prefabrication method. HDB has also developed and refined its own brand of precast technology and components, factoring in Singapore's environment and weather conditions.

2 HDB has standardised as many of the building components and flat layouts as possible. This helps to improve the ease of construction and turnaround time and enables HDB to deliver flats faster to flat buyers. Even with standardised precast components, we can still customise some components for each BTO project to give it a distinct identity. This enables residents to form a greater sense of belonging to their home and community.

3 In the last decade, HDB has implemented a series of initiatives to ramp up construction productivity – this ranges from using new construction methods (alternative piling method) and material (vinyl flooring), to designing precast elements (Large Panel Slabs) to be suited for the adoption of mechanised and automated production. In recent years, we also adopted Prefabricated Prefinished Volumetric Construction and Prefabricated Bathroom Units to further increase construction productivity.

4 We are using DfMA in all new HDB projects from 2021 and adopting the Integrated Digital Delivery (IDD) approach in some projects. Through such efforts, we achieved 25.9% productivity improvement in 2020 surpassing the target we had set in 2010 to achieve 25% productivity improvement by 2020. Despite the challenges posed by the pandemic, HDB has seen 26.2% productivity improvement in 2021.