

Formula for quality construction

Ho Lee Construction's award-winning projects have a common star quality



Project director Susan Seah (centre) and her team. PHOTOS: HO LEE CONSTRUCTION

BY MICHELLE BONG

This year, Building and Construction Authority (BCA) awards have been handed out to four Ho Lee Construction projects: Ho Lee Construction House, SkyPeak@Bukit Batok, Punggol Vue and Golden Ginger. While each one was unique in terms of design, complexity and challenges, they have one thing in common: they were built on the foundation of stellar productivity management.

Says project director Susan Seah: "Productivity in construction is a key initiative by BCA and our challenge is to achieve productivity without compromising quality. This requires the adoption of technology to harness productivity, integrating it with quality management."

"It would be myopic to take an approach that focuses on improving productivity but end up with lower quality products that do not satisfy the end user. It is important to look at productivity management as the cornerstone of a construction process built on the bedrock of quality management."

Improving productivity

Here's how its four projects collectively led to increased productivity of about 20 per cent compared to earlier projects:

SkyPeak @Bukit Batok

The Lifting Jumpform system enabled walls to be built by pouring concrete into steel formwork panels. The project hit a High Project Productivity Score of 0.68 man day per sqm — eclipsing the industry average of 0.504.



Punggol Vue

Adopting 3D and 4D building information modelling (BIM) technologies enabled better visualisation and more effective construction planning, so that construction conflict could be identified early and resolved.



Ho Lee Construction House

Steel staircases were prefabricated off-site for faster installation, and lightweight pre cast concrete panels reduced the need for skilled workers, minimising the creation of material wastage.



Golden Ginger

Ho Lee adopted new construction methods (including the use of steel metal plates as staircase tread protection during construction) and used BIM to improve construction planning.



Formula for success

A look at the three main qualities harnessed by TPS Construction to win the BCA Construction Excellence award for its Lakeville condominium project

BY MICHELLE BONG

It is a tall order to claim the recognition as the construction project that achieves performance excellence and encourages contractors to aim for higher standards of management, technical expertise and workmanship.

But TPS Construction has done it by clinching the Building and Construction Authority Construction Excellence award this year. Its director Sharine Teo believes that having a cohesive team, construction expertise and the adoption of effective processes and solutions helped to raise the bar and pave the way for success.

#1 A cohesive team

"The project team was led by a senior project manager who was assisted by a project manager, a construction manager, a structural engineer, as well as a monitoring and evaluation coordinator. Rounding up the team were three site foremen, a monitoring and evaluation supervisor and a quality assessment team comprising a manager, a foreman and a supervisor."

"The team oversaw tasks such as piling, basement excavation, substructure and superstructure work and landscaping. Work



Lakeville condominium was completed one and a half months ahead of schedule.

Award-winning project Lakeville condominium was built on high standards of technical expertise and workmanship. PHOTOS: TPS CONSTRUCTION

was delegated efficiently by trade and specialisation, and the project was completed ahead of time — 36 and a half months instead of the contractually-required 38 months. The safety record was also spotless. "Weekly coordination meetings were held, followed by site walks to resolve any unforeseen issues on a real-time basis."

#2 Construction expertise

"TPS places a strong emphasis on quality with attention to detail and client-specific requirements in its unwavering pursuit to become a transformative builder that embraces progressive construction methods while minimising our footprint through sustainable practices."

"With each project, we work closely with subcontractors and suppliers to raise performance and practices to the highest level — leveraging the expertise of an in-house craftsman and a committed management."

#3 Effective processes and solutions

"Our process is simple: PDCA — Plan, Do, Check, Action. The Lakeville project was our first to use 90 per cent precast panels installation instead of conventional cast-in-situ. Building Information Modelling was also used to assist coordination and collision detection before construction."

"We also aimed for higher standards of management, technical expertise and workmanship. For example, the decision to use the precast system instead of the conventional cast-in-situ volumetric aluminium form work system resulted in a shorter construction cycle and better workmanship."

"These initiatives have been an encouraging pat on the back, and an invitation to achieve more."

"This award has further bolstered our resolve to be a quality builder and inspired us to achieve an even higher standard of craftsmanship in our future projects. Having secured a win in both the commercial and the residential-condo category, our next milestone will be an award in the residential-landed category."

