

# Organisations Category Contractor in New Works

**Smart Sustainability Award** 

**Gammon Construction Limited** 



## Design and Construction of Kwun Tong Composite Development

The Project diverts 75% (800 tons) of non-inert demolition waste through community donations, upcycling, on-site and off-site reuse, and recycling. The ready-mixed concrete for the superstructure is 100% composed of GGBS concrete. The project promotes the use of structural timber in the high block, replacing traditional concrete structures, while 60% of the low block adopts large-scale structural MiC to accommodate and integrate indoor spaces of different sizes.



#### Application of digitalisation to contribute to sustainable construction:



The project incorporates a Smart Site Control Centre using the centralised GTwin platform, which integrates real-time monitoring devices and 4D stimulation for visualising and managing the construction sequence. This approach facilitates effective communication of the plan to all project stakeholders, including clients, architects, consultants, and subcontractors. The system offers real-time data, insights, and alerts to site managers and other stakeholders, enabling the optimisation of site operations. This ensures alignment among all team members and promotes the pursuit of shared objectives.

### **Sustainable Best Practice 1**

60% of the low block adopts large-scale structural MiC. Low block serves as skill development centre, including various types of high ceilings and large activity rooms, workshops, classrooms, etc. The project adopts large-scale steel-structured MiC to accommodate and integrate indoor spaces of different sizes.





## **Sustainable Best Practice 2**

The design of the high block incorporates structural timber instead of conventional concrete structures. Structural timber not only provides renewable properties and a reduced carbon footprint compared to reinforced concrete and steel but also enhances design flexibility. This integration of timber supports sustainability goals while offering the opportunity for innovative and adaptable architectural concepts.

### **Sustainable Best Practice 3**

The use of biochar in the greening of construction sites provides a new opportunity for carbon reduction in future landscape works. Biochar, a renewable biomass, can be used in planting to reduce reliance on fertilizers and pesticides, increase soil water retention capacity, and promote soil carbon sequestration.

