

# ICC MODULAR BUILDING SOLUTIONS

Smart Solutions for Smarter Buildings





## **ICC** LEADING THE WAY IN INNOVATIVE, CREDIBLE, CONSTRUCTION

International Construction Consortium (Pvt) Limited (ICC), has been in the construction business since 1980, and is undoubtedly the market leader in the industry. As Sri Lanka's pioneer in Prefabricated Prefinished concrete manufacturing, ICC has revolutionized the building industry by introducing Precast Prefinished Volumetric Construction (PPVC) locally and globally.

### **OUR DIFFERENCE**

- 40+ Years' Experience
- Highest CIDA Grade, CS2
- Global Reach
- ISO 9001:2015 Standard
- ISO 14001:2015 Standard
- ISO 45001:2018 Standard





## BETTER DESIGN FROM THE START



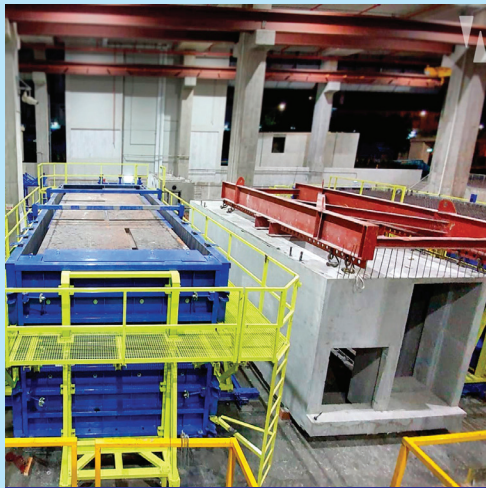
Modular buildings are very similar to traditional ones, but only constructed differently. Its built off-site, in factory settings, in multiple 'modules'. These sections are then transported to the site and installed to fit.

The modular building approach we use, inspired by PPVC technology, reduces on-site manpower and construction times, increases efficiency, and ensures a safer and more conducive work environment, with a minimal impact on the surrounding living spaces.





## OVERVIEW OF OUR WAY



**CASTING OF THE CARCASS**



**FIT OUT**



**TRANSPORTATION**



**ERECTION**

We design and create individual modules that come together swiftly and easily to ensure all our modular properties are identical in their fit and finish.








**SUSTAINABLE**  
Solutions that are smart, energy efficient, and environmentally friendly.

**AFFORDABLE FOR EVERYONE**  
Built to specific dimensions and quality standards, providing better cash flow management and an efficient ROCE.



**FASTER & CONSISTENT**  
With the standardization of modular parts, a building project can be completed faster and with fewer obstacles than using traditional construction methods.



**FLEXIBLE DESIGN**  
With very few design limitations, the product can be customized to any style you desire.

**HIGHER QUALITY**  
Manufacturing and construction are based on digital models with rigorous quality procedures.



**EXCELLENCE**  
Improved business practices and consistent quality influence our product development, customer service, and manufacturing.

**END-TO-END DELIVERY**  
Preconstruction, delivery, installation, on-site groundworks, sales, and aftercare. We take control of the whole process.



## WHY CHOOSE ICC FOR YOUR NEW MODULAR BUILDING?

We recognise that, to you, it's a dream. To ensure your new project delivers on your vision, we take the time to understand your needs.





## PROVIDING INDUSTRY EXPERTISE



### ARCHITECTS

#### UNCOMPROMISED CREATIVITY

Each project is unique, and requires to reflect the personality and needs of every client. We are able to create the reality that corresponds to your vision. With no design limitations, doors, windows, and facades can be customized as desired. Almost any type of style can be achieved, from colonial to contemporary, including arches and curves.

While the modules are assembled off-site, the preparation of the site and construction of the foundations occur simultaneously on-site. Overlapping timelines clearly benefits clients in terms of a faster occupation time.

- We have extensive experience in designing, manufacturing, and constructing modular buildings.
- We create attractive neighborhoods that meet the needs of the modern world together.
- Products, structures, and shapes are easily combined using open systems.





PROVIDING INDUSTRY EXPERTISE

## STRUCTURAL ENGINEERS

AIM FOR ACCURACY IN DESIGN

We are distinguished from other developers with our commitment to modern building methods based on the premise of precise quality, repeatability, and continuous improvement.

Our modular buildings are designed and created as a series of individual modules that can be combined quickly and easily to ensure they are consistent in fit and finish. Quality control is conducted prior to the product leaving the factory, which ensures smooth operations during the construction phase, a shorter construction time on site, and a faster project completion.

The technology we use craft the perfect designs for any type of property, whether it is a low/high rise residential building or a mid-rise hotel chain. Whether you want to add to an existing building or construct a new one, our partnership can be the best way forward.

- Lower greenhouse emissions and waste reduction by up to 50%.
- With our 3D models, complicated elements can be fully resolved prior to manufacture.
- Building bracing guidelines and performance values that are clearly defined.





PROVIDING INDUSTRY EXPERTISE

## DEVELOPERS AND INVESTORS

WE BUILD FOR EVERY NEED

The competitive environment has compelled investors and developers to make a quick return on their investment. Investors and developers can benefit from the all-inclusive nature of PPVC, as well as the time, manpower, and other savings that will result from this solution. Safety at work will reduce injuries, and factory production of modules will ensure quality and minimize waste.

- Investment returns in a short construction phase.
- Designed for modern and environmentally conscious consumers.





# PRECAST INFRASTRUCTURE FABRICATED TO LAST

## BUILDING THE FUTURE



**IN-SITU CONSTRUCTION**

The construction project is carried out on-site itself, in the position in which it will be completed.



**LINEAR INTEGRATION**

Linear precast elements, such as beams and columns are assembled together on the construction site.



**2D INTEGRATION**

Components manufactured off-site are assembled on-site in accordance with the customer's specifications.



**3D PRECAST**

PPVC modules finalized with finishes and fit outs produced at the factory and transported separately to the site.



40% Faster construction time.



90% Less waste.



Reduction in Labour requirements.



Environment Friendly.



International Standards of Quality.



Enhanced safety, cost reductions, and improved site management.



Minimal dependency on weather conditions.



Long Term Durability.





# ACHIEVING INTERNATIONAL STANDARDS OF QUALITY

## PPVC MODULAR PROCESS



### THE DESIGN

Our Engineering team conducts an in-depth analysis of the characteristics of the project, and proposes custom-designed value-engineered solutions that meet all of the project requirements at a minimal construction cost. As a result, PPVC designs will be far more robust in comparison to conventional designs, which will result in a great deal more productivity in construction.

### THE FABRICATION

ICC manufactures precast moulds in accordance with ISO 9001 International Standards, ensuring quality assurance and quality control. For consistent precision, they are fabricated in steel and three-dimensionally designed.

- Mould design and fabrication.
- Mould delivery to factory and setup.
- Fabrication of reinforcement cages.
- MEP and cast-in items installation.
- Pre-concrete inspection.
- Concrete carcass
- Completion of curing, de-moulding and post-pour inspection
- Module shifting/turning/storing
- Interior fit out of the carcass

### THE DELIVERY

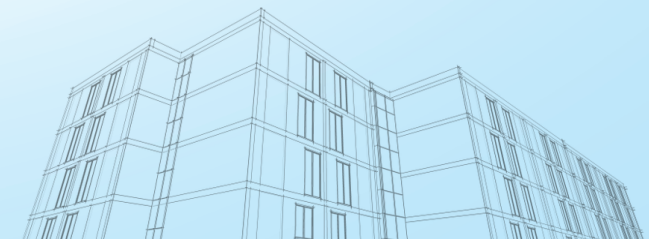
ICC has a 'tested and proven' comprehensive logistics and transportation plan to mitigate potential damages during transportation of PPCV modules and to maintain highest QAQC standards. Planned and coordinated deliveries reduce traffic congestion, particularly in urban areas and on the job site.

### THE FIT AND FINISH

The modules are configured in accordance with the layout of the design. The geometry of the modules may be simplified to facilitate easy construction. The number of modules will vary depending on the type of project or the design (residential-low rise, executive accommodation -mid-rise, etc.,)

### CONSISTENT CONSTRUCTION

The end-to-end manufacturing process of ICC modular buildings ensure exceptional quality of construction. The entire process requires an incredible amount of planning, oversight, and precision leading to less room for damage, errors, or delays. Since all of the components are completed at ICC, you can rest assured that their integration will also be seamless for a consistent construction.



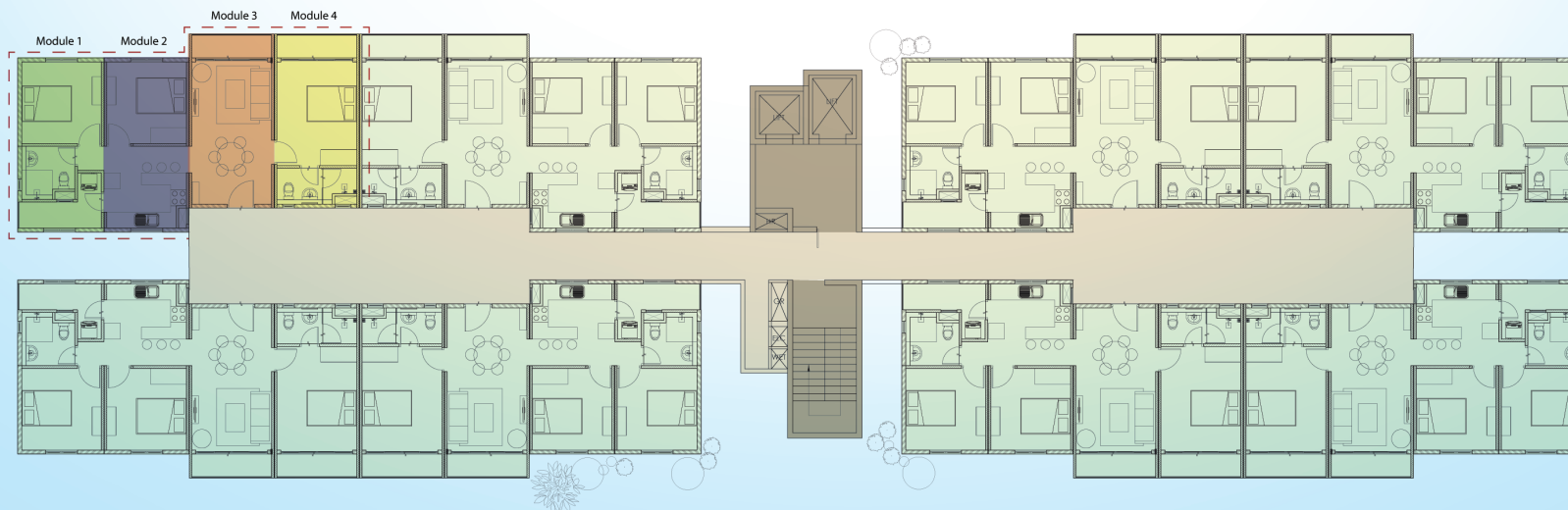
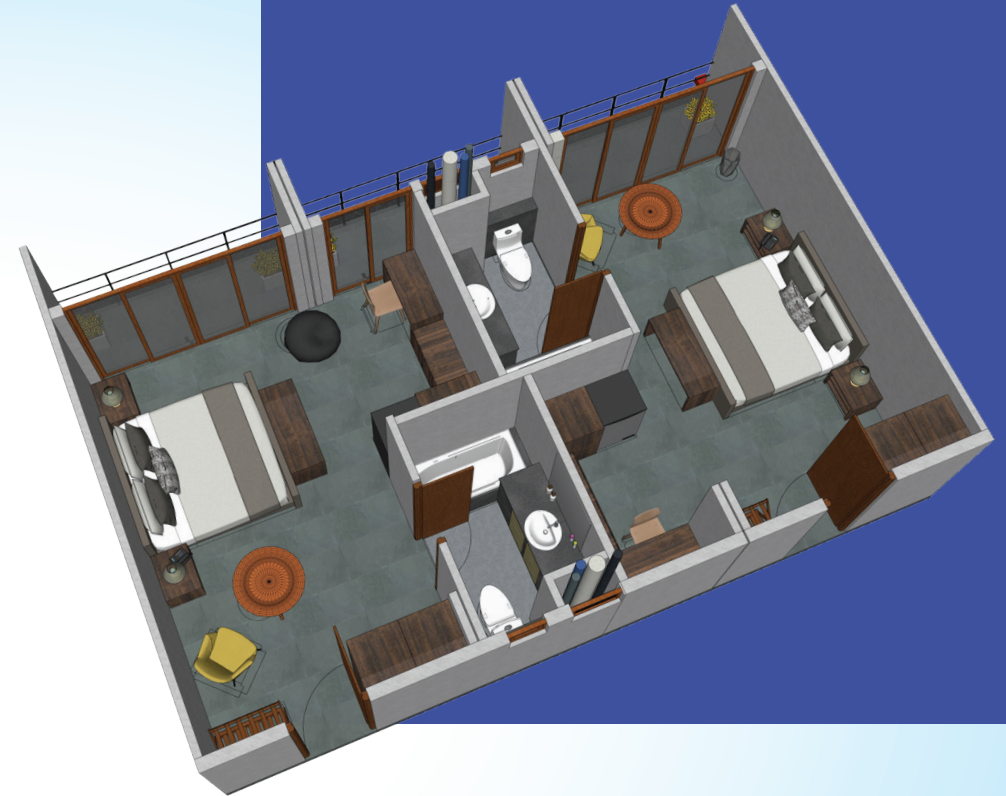


## ICC SOLUTIONS

### MODULAR APARTMENTS

ICC's PPVC apartment complexes revolutionize the construction industry locally and globally with their striking architectural design, breathtaking ambience, thorough finishing, sustainable consideration, value for money, and quick completion.

- The layout illustrates a floor consisting of four 3BR apartments.
- A 2BR apartment is constructed using three modules, and a 3BR apartment is constructed using four modules.
- Layouts can be customized according to customer requirements and land size.
- Peripheral and internal ties achieve structural rigidity in a building.



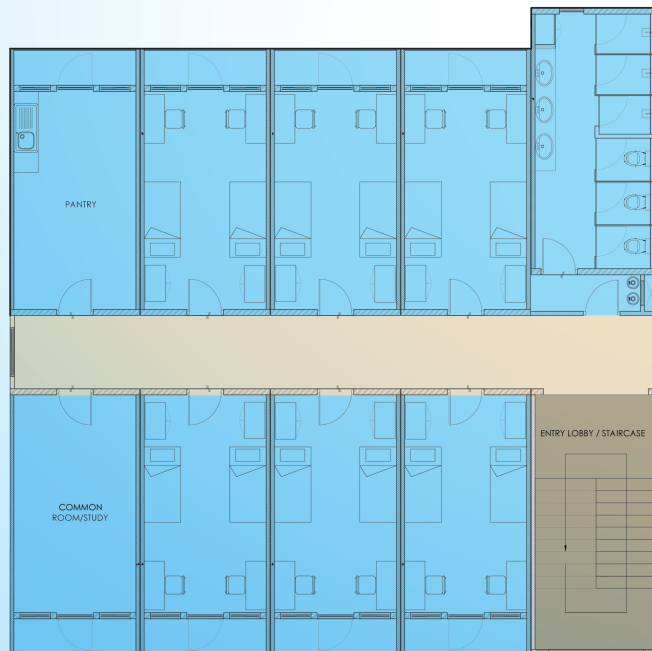


## ICC SOLUTIONS

### DYNAMIC ACCOMMODATIONS

Modular in construction, prefabricated in a quality-controlled environment, fully factory finished, delivered to you and ready for use in just a few weeks, so that you are up and running with the least amount of disruption on-site. Ideal for Accommodations and Hostels, as well as medium to high rise buildings.

- The layout illustrates a combination of nine PPVC modules.
- Modular boxes are converted into hostel rooms and the staircase and corridor are cast on-site.constructed using four modules.
- Layouts can be customized according to customer requirements and land size.



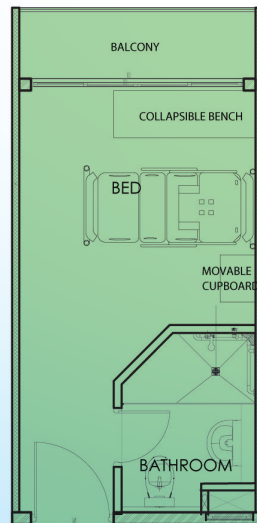
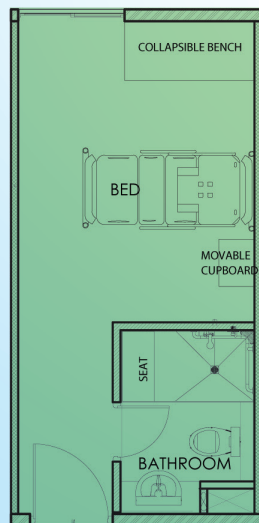


## ICC SOLUTIONS

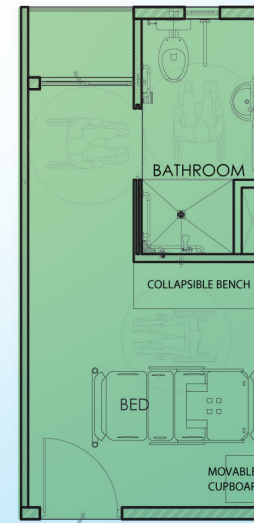
### COMPREHENSIVE HEALTHCARE

Medical facilities, both private and government-owned, continue to be in high demand in Sri Lanka. The ICC's PPVC efficiency in delivering complex healthcare facilities significantly lowers project risks, increasing return on investment.

- The layout illustrates a hospital room made of PPVC modules.
- Modules can fabricate various hospital room layouts (interiors, sizes, positioning).
- Layouts can be customized according to customer requirements and land size.
- The combination of multiple PPVC modules can be used to create hospital wards with in-situ corridors.
- Ideal for locations without adequate infrastructure or raw materials.
- Suitable for buildings with low or medium rises.



LAYOUT 1



LAYOUT 2

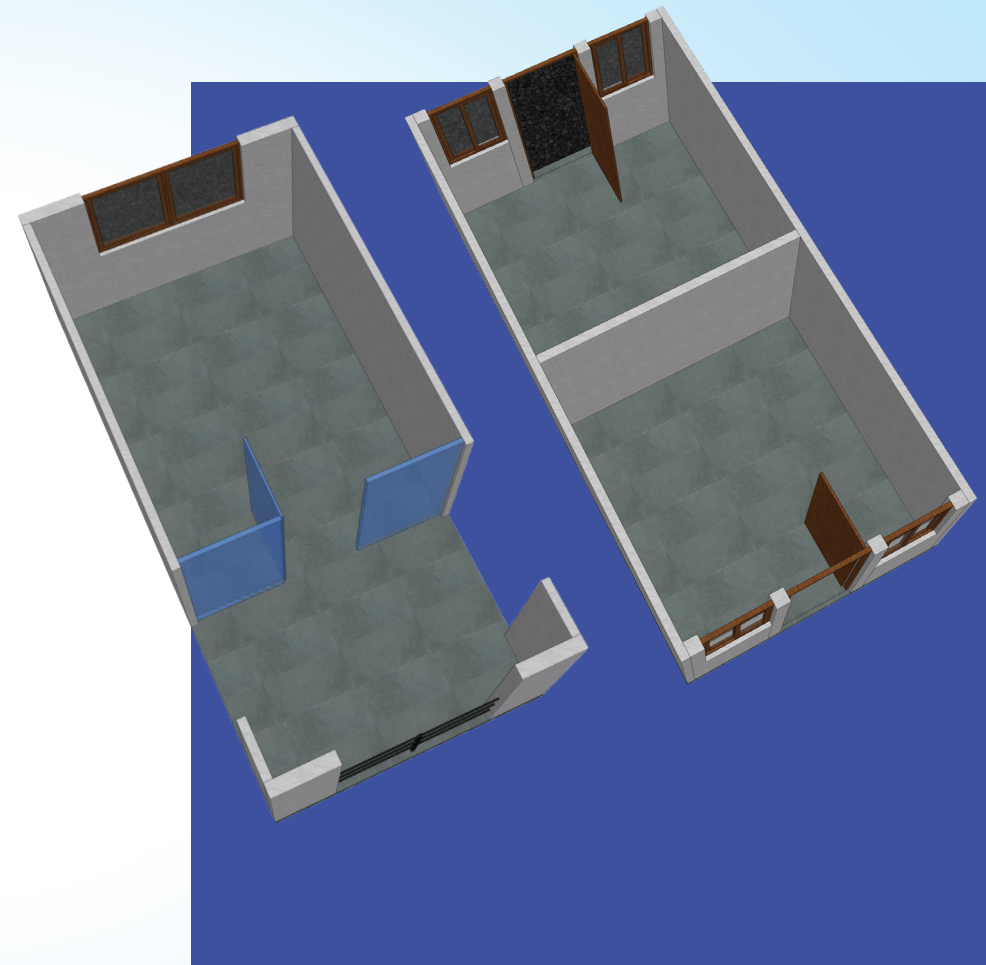
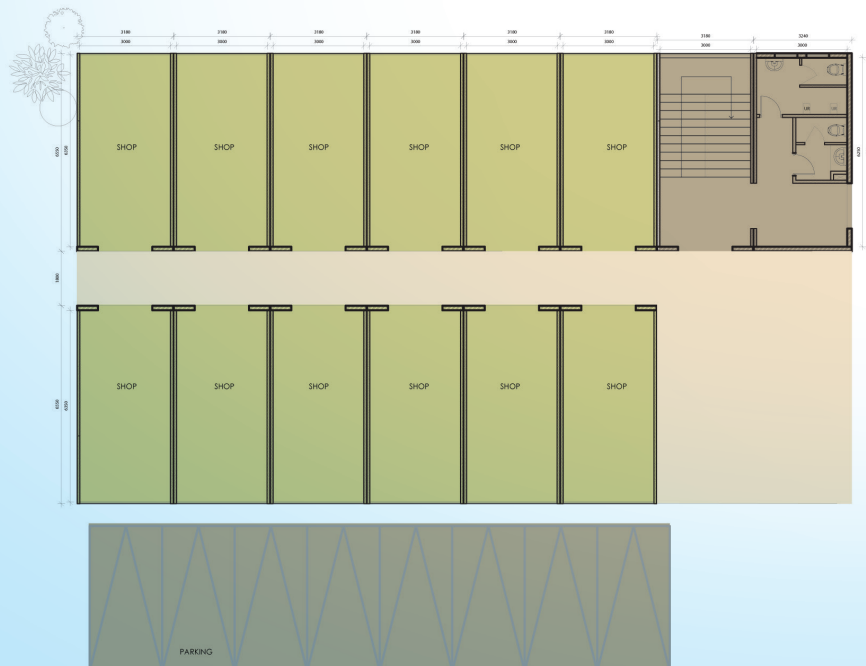


## ICC SOLUTIONS

### HIGH RISE COMMERCIAL BUILDINGS

Construction can be completed faster using PPVC technology, with a minimal footprint than conventional construction. A high-quality modular construction process is conducted in factory-controlled conditions while the foundation and utilities are installed on site. In contrast to sequential builds utilizing traditional construction methods, overlapping on-site and off-site builds reduce turnaround time.

- An illustration of the layout of the retail space shows 12 stalls and a restroom.
- The entrance to the corridor and the staircase will be cast in situ.
- Layouts can be customized according to customer requirements and land size.
- Multiple PPVC modules can be combined to create low and medium rise retail spaces.





## ICC SOLUTIONS

### HOMES AND SUITES

With its small size and relatively simple design, PPVC technology can be utilised in residential facilities and is more cost-effective and time-efficient.

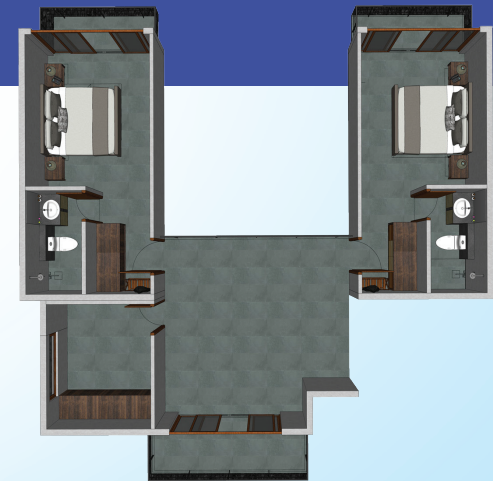
- In the layout, a single-storied residential space is proposed, within a land size of 7-10 perches.
- It offers 2 bedrooms with attached bathrooms, a living room, dining room, wet kitchen and pantry.
- Layouts can be customized according to customer requirements and land size



UPPER FLOOR PLAN



GROUND FLOOR PLAN





I think ICC has made a bold and timely decision to introduce PPVC technology to the local construction industry.

I have been involved with this project from its inception, especially with respect to the selection of construction materials, evaluation of the structural performance, and the construction process.

Extensive tests were conducted to verify the performance of the materials and the entire construction process, including casting, finishing, transporting, placing, and connecting the modules on-site.

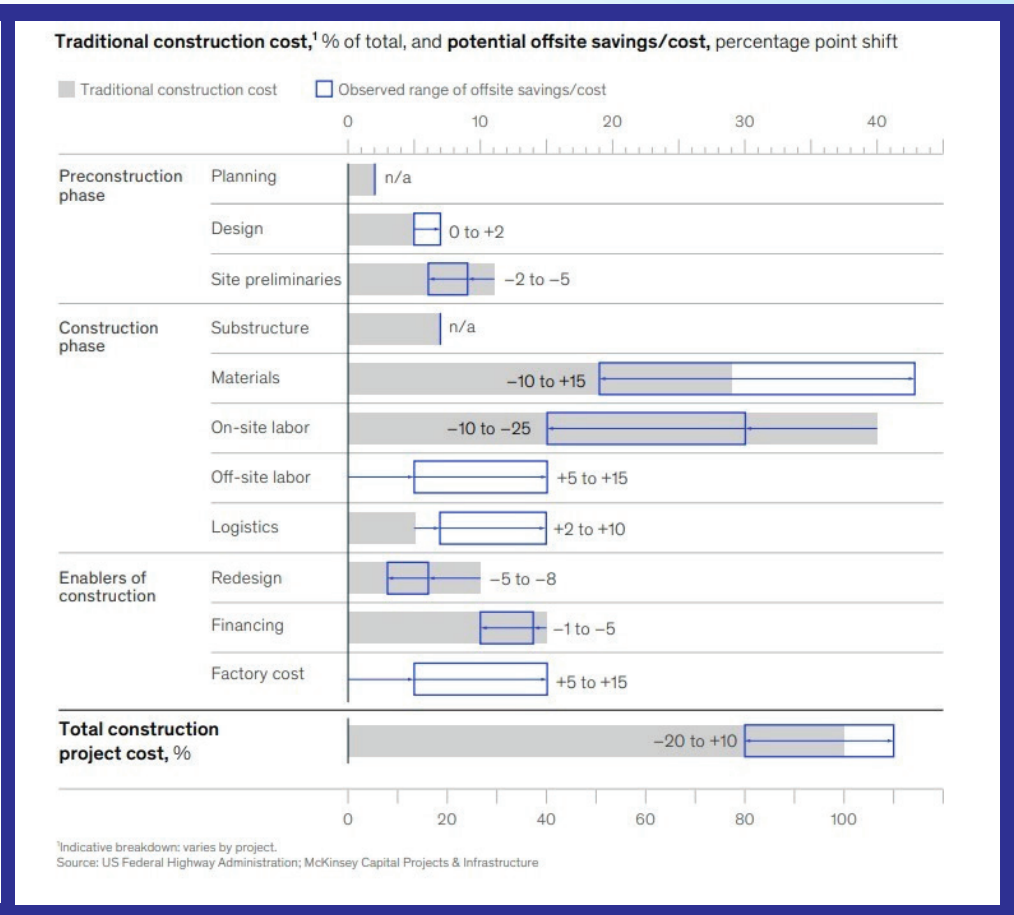
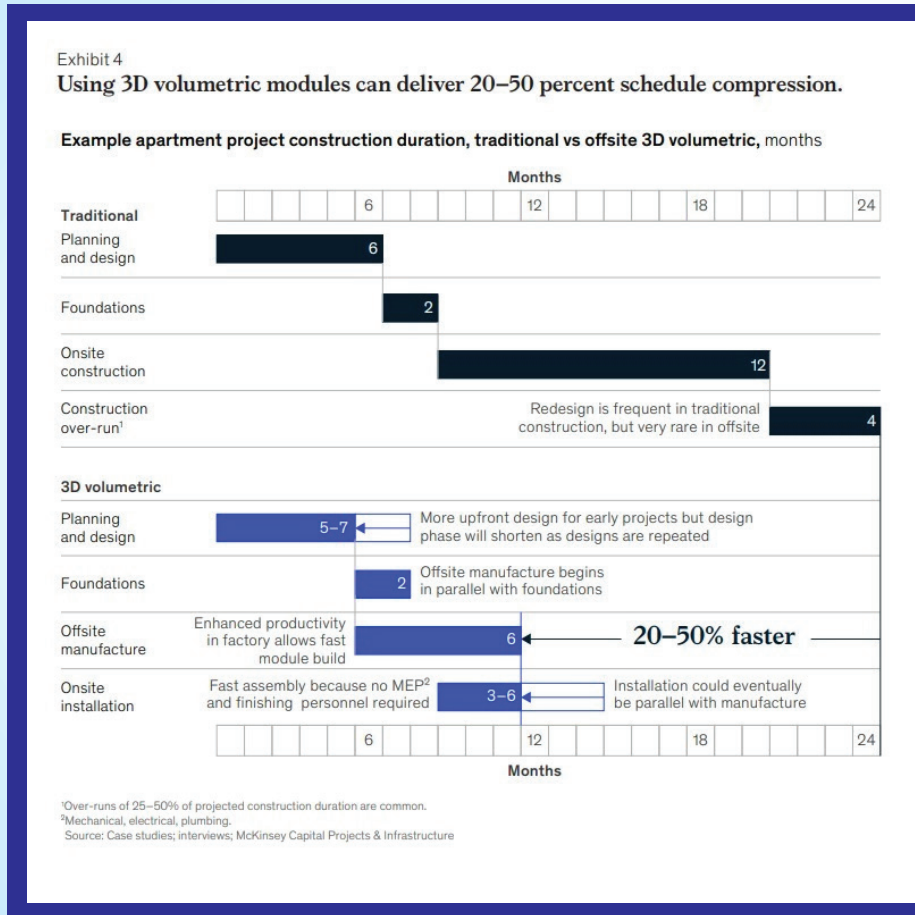
I must congratulate ICC for the successful completion of the first-ever modular building in Sri Lanka, and I am confident that the introduction of PPVC technology will revolutionize the local construction industry.



**Professor Anura Nanayakkara**  
Senior Professor  
Department of Civil Engineering  
University of Moratuwa



# MODULAR BUILDINGS VS TRADITIONAL CONSTRUCTION — WHICH ONE IS BETTER?



The use of modular constructions is becoming increasingly popular as a means of improving efficiency, cost effectiveness, and flexibility in construction. McKinsey and Company's report illustrated below describes the basic differences and benefits between modular and traditional construction.





## OUR ACHIEVEMENTS

Award	Project	Year
Platinum Award (GBCSL)	Oceanfront Condos - Galle	2021
Construction Excellence (CIDA)	Haliela Water Supply Project	2020
Gold Award (GBCSL)	ITUM - Diyagama	2019
Construction Excellence (CIDA)	SAIF Estate at Bandarawela	2019
Construction Excellence (CIDA)	Orchid Apartment II - Malabe	2019
Construction Excellence (CIDA)	Oceanfront Condos - Nilaveli	2019
Construction Excellence (CIDA)	ITUM - Diyagama	2019
Environmental Award	Durra Building System	2018
Construction Excellence (CIDA)	Orchid Apartment I - Malabe	2018
Construction Excellence (CIDA)	Peace Heaven Resort - Tangalle	2017
Construction Excellence (CIDA)	Rainbow Business Centre	2017
Construction Performance (CIDA)	Dambulla to Galewela Road	2017
Platinum Award (LEEDS)	Iceland Business Center	2017
Construction Excellence (CIDA)	Iceland Business Center	2016
Construction Excellence (CIDA)	Secretariat for Ministry of Defence & Urban Development at Battaramula	2016
Construction Performance (CIDA)	Vavunia-Horowpathana Road	2016
Construction Performance (CIDA)	Bambalapitiya Junction to South City	2016
Construction Performance (CIDA)	Liberty Roundabout to Dharmapala Road Junction.	2016
Construction Performance (CIDA)	Galadari Roundabout to Kollupitiya Junction.	2016
Construction Excellence (CIDA)	Urban Regeneration Project	2015
Construction Excellence (CIDA)	Club House & Pool - Havelock City	2014
Green Construction Excellence (CIDA)	Ulagalla Walawwa Resort	2012
Construction Excellence (CIDA)	Jungle Beach Resort -Kuchchaveli	2012
Construction Performance (CIDA)	Habarana to Kanthale	2011
Construction Excellence (CIDA)		2002-2010





# OUR CLIENTS INTERNATIONAL







# EPITOME OF MODERN ENGINEERING

GLOBAL REACH, LOCAL EXPERTISE





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