



# Asia Sustainable Infrastructure Advisory (ASIA) Panel

Invitation for Thought Pieces, Success Cases & Discussants



MRCB Building System

# Success Case Sharing

# MRCB | Building System

MBS – FUTURE OF  
**CONSTRUCTION**



MRCB

# WHY MRCB BUILDING SYSTEM (MBS)



## SPECIFICATION

Flexibility in design to meet market requirement from premium to affordable housing.

## FABRICATION

Flexible and mobile yard - anywhere to suit required location.

## MATERIAL

Designed to meet requirement. Flexibility in using Steel, Concrete, or Engineered Wood.

## RURAL AREA

Provide options for construction in rural areas.

## URBAN AREA

Enable earlier home ownership.

## ACCESSIBILITY TO NEW SUPPLY CHAIN

## STANDARDISATION OF DESIGN

- Design for replication.
- Design for maintenance.

## SIMPLIFIED PROCUREMENT AND PLANNING PROCESS.

## UPSKILLING LOCAL WORKFORCE

## ENHANCED CONSTRUCTION WITH PROPRIETARY JOINTING SYSTEM.

## PATENTED IN MORE THAN 30 COUNTRIES.

## INNOVATIVE DESIGN TO MINIMISE WASTAGE.

# MBS USES MODULAR CONSTRUCTION TO:



## **REDUCE Labour by 30%**

(Repetitive work to upskill local workforce).

## **REDUCE Construction duration by 30% average**

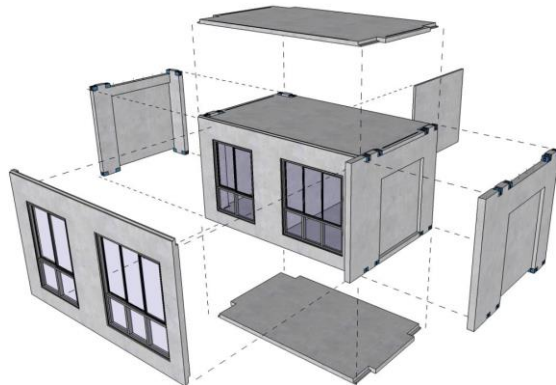
(Able to achieve up to 50% reduction, depending on location and type of building).

## **REDUCE works-on-site by 75% - 90%**

(Construction undertaken in fabrication yard for safe, high quality finish and conducive construction environment).

## **REDUCE 10% - 20% of construction cost**

(Minimise time, material wastage and scale of construction at yard).



### **Aims to improve standards:**

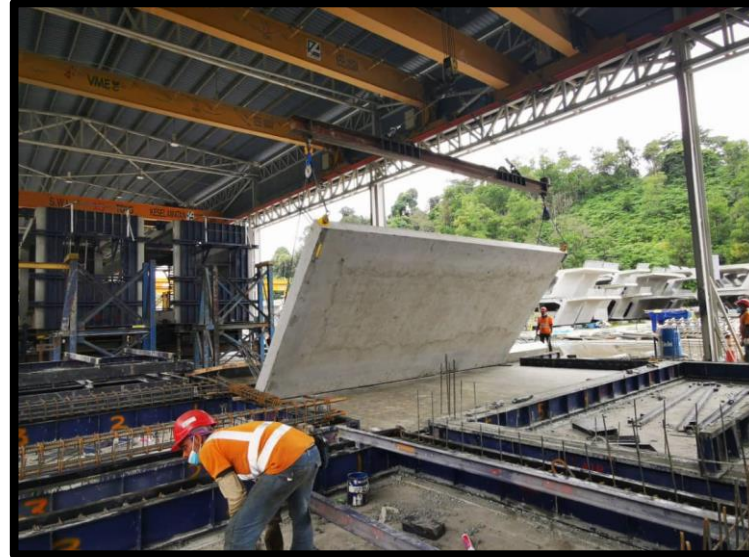
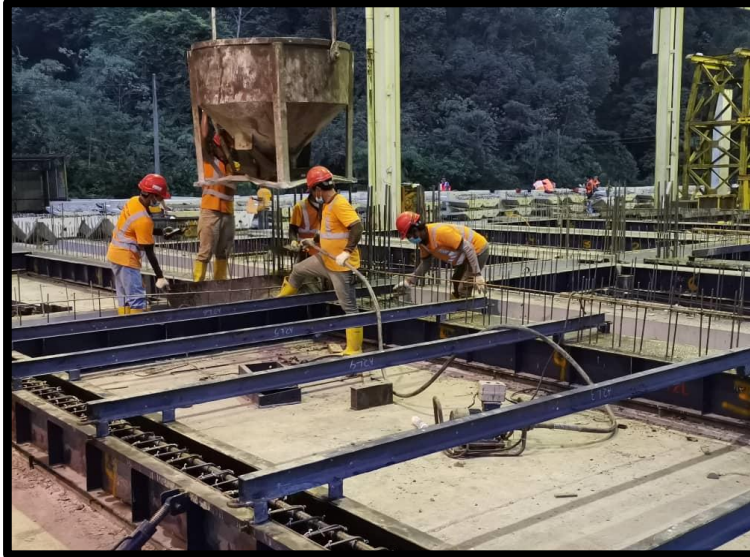


Quality



Health, Safety, Security  
and Environment

# MRCB Building System (MBS)



## A Modular Construction System:

- Building is constructed off-site, under controlled plant conditions, using the same materials and designed to the same codes and standards as conventional built.
- Also known as Prefabricated Prefinished Volumetric Construction (PPVC) where free-standing 3-D modules are completed with internal finishes, fixtures and fittings before being delivered and installed on site.
- A step beyond Industrialised Building System (IBS) with significant differences in design and implementation approach.

# MBS IN MALAYSIA BY MRCB



## COMPLETED:

Single storey for Landed House.  
MBS Show Unit @ the International Construction Week 2019 by CIDB.  
Potential for FELDA homes



## COMPLETED:

5-storey Show Unit for High Rise Construction.



## ONGOING:

Medium and High Rise at Plot F, Kwasa Sentral, Kwasa Damansara City Centre.



## ONGOING DISCUSSION LOW END HIGH RISE

Kampung Pandan Development, PRIMA housing projects and Bukit Jalil Residential.



## CASE STUDY PREMIUM HIGH RISE

At Plot D, Kwasa Sentral, Kwasa Damansara City Centre.



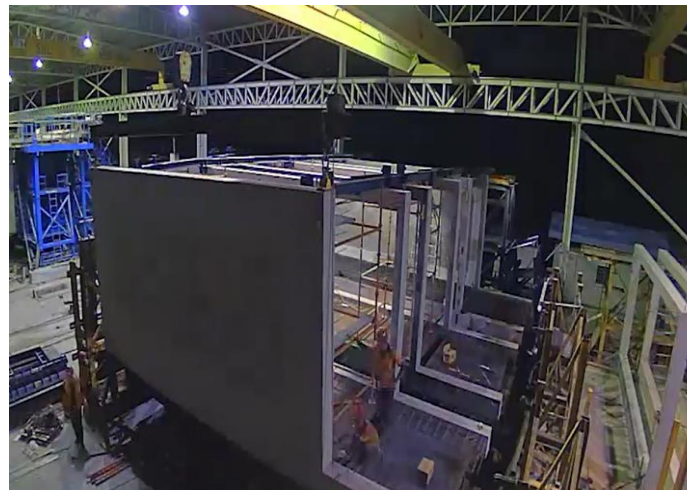
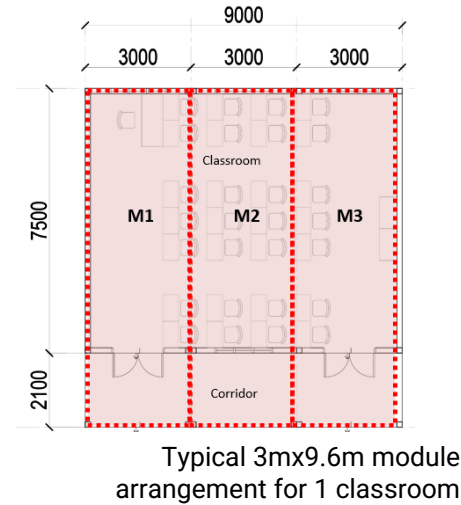
## CASE STUDY

- Hotel
- School
- Hospital
- Surau

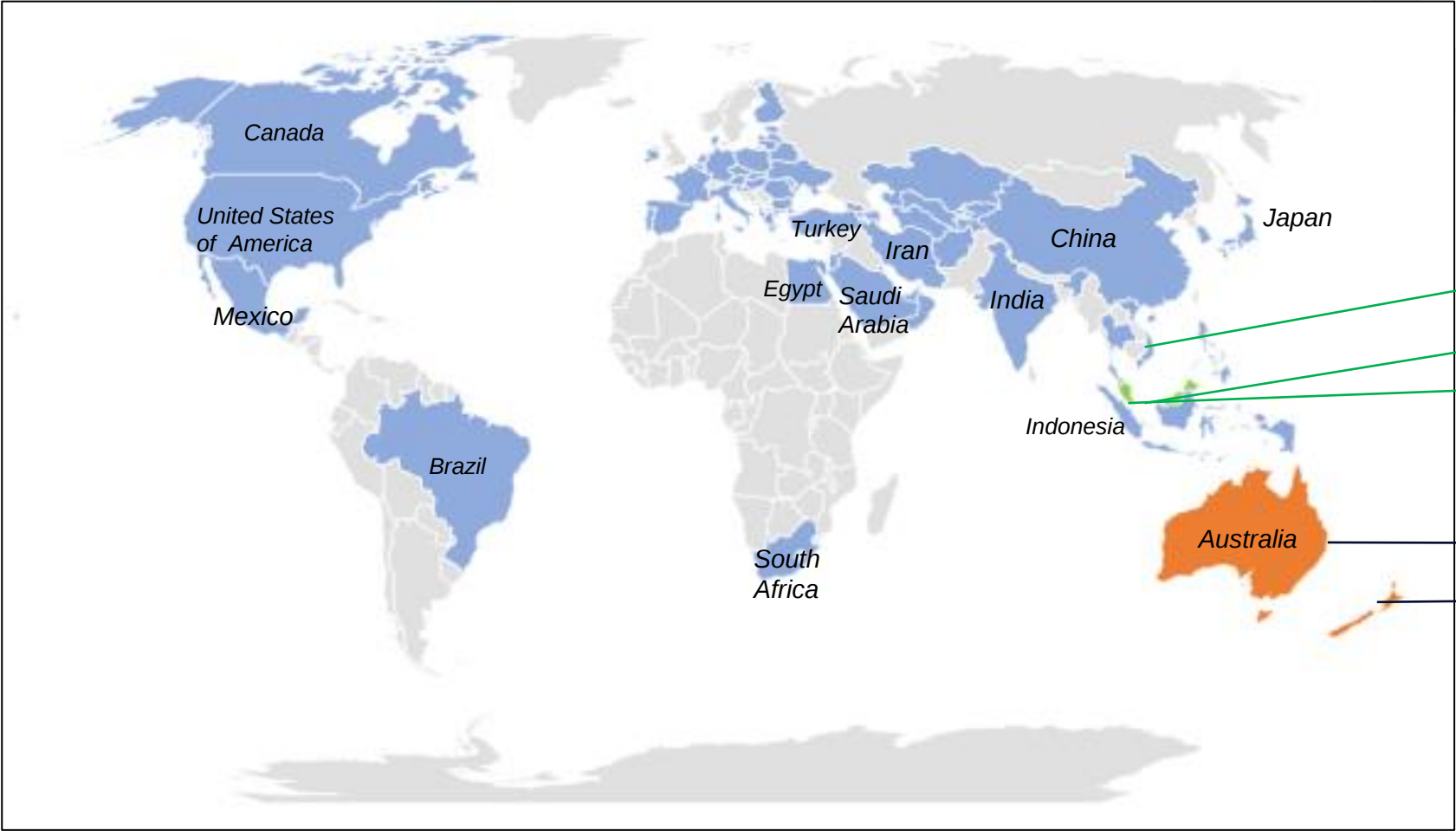
# PUTRAJAYA SCHOOL EXTENSION

## PUTRAJAYA PRESINT 18 (1)

- Design and Build for an additional of 35 classrooms across 5 school precincts in Putrajaya
- Project comprised of single storey and double storey individual classroom blocks
- Total of 123 classroom and toilet modules installed
- Project Duration – 25 Nov 2021 to 16 Mar 2021 (3.7 months)



# MBS IN MALAYSIA BY MRCB



**Patented in more than 30 countries**

**On-going works in 3 countries**

Hong Kong

Malaysia

Singapore

**On-going discussion in 2 countries**

Australia

New Zealand

## Going Global

# About Minconsult Sdn Bhd (Minconsult)



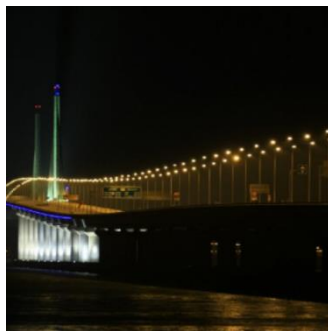
Minconsult is a multi-disciplinary engineering consultation company that can provide a comprehensive range of consulting services. These include a wide spectrum of engineering and related fields of services.

Minconsult is the engineering designers for the MBS projects.

Representing Excellence in Engineering since inception, Minconsult has grown nationally and internationally since 1962. The continuing and extensive development of expertise, innovation and quality project delivery, enables and fortifies our stature as a leading international and multi-disciplinary consultancy practice. Minconsult continues to engineer excellence and practice engineering excellence.

Minconsult worked in 28 countries and over 5 continents

For more information kindly refer to our website <http://www.minconsult.com>





# Thank you

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