

14 September 2023

Able Engineering Company Limited
155 Waterloo Road, Kowloon Tong,
Kowloon, Hong Kong
(Attn: Mr LAU Chi-fai, Daniel)

Dear Mr LAU,

Letter of In-principle Acceptance
(Acceptance Reference No.: MiC 13/2023)

This letter is issued to **Able Engineering Company Limited** to confirm that the Modular Integrated Construction (MiC) system (**Model No. ABLE-MIC-001**) as submitted to the Buildings Department (BD) is acceptable in principle for use in private building projects in Hong Kong in respect of the performance aspects listed in Appendix I, subject to the following conditions:

- (i) The design and construction of any building project adopting the above MiC system shall comply with the provisions of the Buildings Ordinance (BO) and its subsidiary legislations;
- (ii) The conditions as set out in Appendix II and Appendix III shall be complied with;
- (iii) The modular units of the above MiC system shall be fabricated in the factories listed in Appendix IV with a valid ISO 9001 or equivalent quality assurance certification; and
- (iv) This in-principle acceptance (IPA) is subject to a validity period expiring on 14 September 2028.

2. General information of the MiC System (Model No. ABLE-MIC-001) submitted by Able Engineering Company Limited is available on BD's website.

/This ...

3. This IPA shall not be construed as an exemption from obtaining prior approval and consent from the Building Authority under the BO before commencement of building works nor the granting of any exemption in gross floor area calculation.

4. This IPA does not give any warranties, explicit or implied, regarding their availability, efficacy, fitness for a particular purpose, title or non-infringement of copyright. The manufacturer/supplier/user must ensure that the above MiC system is safe for public use and complies with all relevant legislation and statutory requirements at all times.

Yours faithfully,



(CHAN Yuen-ming, Mary)
Chief Officer/Technical Services
for Director of Buildings

c.c. YIU Shuk Yin (Authorized Person)
c/o Ajar
Room 105, 1/F Enterprise Building,
228 Queen's Road Central,
Hong Kong

CHEUNG Yiu Sun (Registered Structural Engineer)
c/o Wilson & Associates Ltd
1608-09, Nan Fung Commercial Centre,
19 Lam Lok Street,
Kowloon Bay,
Hong Kong

BD/MiC/230208 (S)

**Applicable Performance Aspects
for In-principle Acceptance Reference No. MiC 13/2023**

The in-principle acceptance covers the following performance aspects of MiC system (Model No. ABLE-MIC-001) of Able Engineering Company Limited under the Buildings Ordinance (BO) and its subsidiary legislations:

- (a) Provisions of means of escape required under Part B of the Code of Practice for Fire Safety in Buildings 2011 (FS Code) and regulation 41(1) of Building (Planning) Regulations (B(P)R);
- (b) Provisions for fire resisting construction required under Parts C and E of the FS Code and section 35 of Building (Construction) Regulation (B(C)R);
- (c) Construction of external wall pursuant to section 27 of B(C)R;
- (d) Height of storeys and provisions of natural lighting and ventilation required under regulations 24, 30 and 36 of B(P)R;
- (e) Sanitary provisions and associated drainage works within the modular units pursuant to Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations;
- (f) Structural performance for loads required under the Code of Practice on Wind Effects in Hong Kong 2019, the Code of Practice for Dead and Imposed Loads 2011 and Part 3 of B(C)R; and
- (g) Provisions for structural performance required under the Code of Practice for Structural Use of Concrete 2013, the Code of Practice for Precast Concrete Construction 2016 and B(C)R.

2. For other performance aspects of the MiC system under the purview of the BO not listed above, compliance with the provisions of the BO and the subsidiary legislations shall be demonstrated when plans are submitted for approval under the BO.

**Acceptance Conditions (Building)
for In-principle Acceptance Reference No. MiC 13/2023**

The in-principle acceptance (IPA) of MiC system (Model No. ABLE-MIC-001) of Able Engineering Company Limited is subject to the following conditions:

- (a) This IPA is confined to adopting the MiC system for domestic use in a building not exceeding 34 storeys (maximum modular units of 32 storeys) as applied for;
- (b) The design and construction of the MiC system should follow the plans accepted by the Buildings Department (Accepted Plans) and tally with the testing criteria of the submitted test reports. If alternative designs, materials or construction methods different from that shown in the Accepted Plans are used, compliance with the relevant provisions under the Buildings Ordinance (BO) and the subsidiary legislations should be demonstrated when plans are submitted for approval under the BO;
- (c) Authorized Person of the development project adopting the MiC system (AP) should ensure valid test and/or assessment reports complying the requirements under Part E of the Code of Practice for Fire Safety in Buildings 2011 would be available before the actual production in the prefabricated factory;
- (d) Applicant and AP should observe the requirements under Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers APP-13 on submission of Schedule of Building Materials and Products and certifying the compliance with the relevant provisions of the BO upon completion of works;
- (e) User manual with maintenance and building safety instructions for future fitting, decoration, alterations and additions of the modules as submitted with the application for IPA should be provided to the owners/occupants/users of the building adopting this MiC system.

- (f) The IPA is subject to the grant of exemption/modification under section 42 of the BO for the following which would be favorably considered when relevant plans are submitted for approval under the BO:

BO/Building Regulations

Regulation 35A of Building
(Planning) Regulations

Description

To accept non-provision of
gas aperture in the bathroom
in domestic premises.

**Acceptance Conditions (Structural)
for In-principle Acceptance Reference No. MiC 13/2023**

The in-principle acceptance (IPA) of MiC system (Model No. ABLE-MIC-001) of Able Engineering Company Limited is subject to the following conditions:

- (a) The design and construction of MiC system should follow the plans accepted by the Buildings Department (Accepted Plans) and tally with the testing criteria of the submitted test reports. If alternative designs, materials, proprietary products or construction methods different from that shown in the Accepted Plans are used, compliance with the relevant provisions under the Buildings Ordinance (BO) and the subsidiary legislations should be demonstrated when future plans are submitted for approval under the BO;
- (b) The MiC system is accepted based on the assumptions listed below. Overall stability, structural analysis, adequacy of structural member and/or structural connections, lateral deflection etc. should be checked when there are any deviations with future structural plans submitted for approval under the BO.
 - (i) Maximum building height from Ground Floor of 112.95m (to Main Roof);
 - (ii) Maximum modular units of 32 storeys;
 - (iii) Maximum design wind pressure of 2.83kPa (unfactored) at Main Roof as shown on drawing no. MiC-GN-001;
 - (iv) Imposed loads, superimposed loads and assumed façade loads as shown on drawing nos.: MiC-FP-001. Imposed loads for vehicular traffic and parking are not considered;
 - (v) Lateral stability is provided by both MiC modules and casted in-situ RC core as shown on drawing no.: MiC-GN-001;
 - (vi) Fabrication and installation tolerances of modular units as shown on drawing no.: MiC-GN-001;
 - (vii) No modular units are stacked more than one-storey above the completed level of each zone in construction stage as shown on drawing no.: MiC-GN-001.

- (c) A full-scale mockup is required to demonstrate and assure the quality of the construction of the following details with the satisfaction of BA prior to the commencement of the module fabrication in factory:
 - (i). The installation and concreting of the composite walls between modules with self-compacting concrete as specified in the drawing no. MiC-GN-004.
- (d) Structural details of external wall, protective barrier, precast standalone wall, corridor, staircase and all in-situ construction elements as shown in drawing nos. MiC-GN-001 and MiC-FP-001 are not included in this acceptance.

Manufacturer and Prefabrication Factory

Details of the accepted manufacturer and prefabrication factory for fabrication of the modular units under In-principle Acceptance reference no. MiC 13/2023 for MiC system (Model No. ABLE-MIC-001) of Able Engineering Company Limited are as follows:

Manufacturer:	Able Engineering Company Limited
Prefabrication Factory:	Wing Hong Shun Enterprises Limited
Address of Prefabrication Factory:	Huizhou City Wing Hong Shun Construction Material Co., Ltd. Bailianhu Village Longxi Town, Boluo Huizhou, Guangdong, People's Republic of China 516121

Remarks:

- (a) *The above factory shall maintain a valid ISO 9001 or equivalent quality assurance certification at all times.*
- (b) *The following items in the Quality Assurance Scheme are for information only. Updated information should be submitted for future building projects with MiC.*
 - (i) *Frequency and extent of inspection by in-house staff and independent parties required in Appendix B of Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) ADV-36; and*
 - (ii) *Frequency and extent of audit by in-house staff and independent parties required in Appendix B of PNAP ADV-36.*