

30 July 2020

Unistress Building Construction Limited  
(聯力建築有限公司)  
10/F, Sui Ying Industrial Building  
1 Yuk Yat Street  
To Kwa Wan, Kowloon

Dear Sir/Madam,

**Letter of In-principle Acceptance**  
(Acceptance Reference No.: MiC 12/2020)

This letter is issued to **Unistress Building Construction Limited** (聯力建築有限公司) to confirm that the Modular Integrated Construction (MiC) system (Model No. **MIC-STEEL 01**) 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 30 July 2025.

General information of the MiC System (Model No. MIC-STEEL 01) submitted by Unistress Building Construction Limited (聯力建築有限公司) is available on BD's website.

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.

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,



(AU YEUNG Hoi-pang)  
Chief Officer/Technical Services  
for Director of Buildings

c.c. FUNG Brian Pak Yan (Authorized Person)  
c/o Oiyn Ltd  
3/F., Flat A, Cheong Fat Factory Building  
Nos. 265-271 Un Chau Street  
Cheung Sha Wan, Kowloon

CHEUNG Yiu Sun (Registered Structural Engineer)  
c/o Wilson & Associates Ltd.  
1805, New Tech Plaza  
34 Tai Yau Street, Kowloon, Hong Kong

BD/MiC/190801(S)

**Applicable Performance Aspects  
for In-principle Acceptance Reference No. MiC 12/2020**

The in-principle acceptance covers the following performance aspects of MiC system (Model No. MIC-STEEL 01) of Unistress Building Construction Limited (聯力建築有限公司) 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 regulation 90 of Building (Construction) Regulations (B(C)R);
- (c) Construction of external wall pursuant to regulation 38 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 unit pursuant to Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations;
- (f) Structural performance for loads required under Code of Practice on Wind Effects in Hong Kong 2004, Code of Practice for Dead and Imposed Loads 2011 and Part III of B(C)R; and
- (g) Provisions for structural performance required under Code of Practice for Structural Use of Steel 2011, Code of Practice for Structural Use of Concrete 2013 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 12/2020**

The in-principle acceptance (IPA) of MiC system (Model No. MIC-STEEL 01) of Unistress Building Construction Limited (聯力建築有限公司) is subject to the following conditions:

- (a) This IPA is confined to adopting the MiC system for domestic use in a building not exceeding 15 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 for the following would be available before the actual production in the prefabricated factory:
  - (i) Intumescent coating (Firecut FM-900) for protection of loadbearing elements;
  - (ii) Fire-rated wall system (Promatect H) for protection of non-loadbearing walls;
  - (iii) Fire-rated ceiling system (Supalux) for protection of non-loadbearing ceiling;
  - (iv) Fire-rated door with intumescent and smoke seals for the exit of each MiC unit and the access door for pipeducts; and
  - (v) Penetration seal (Hilti CP 606 Mastic) for protection of openings in fire barriers.
- (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) ...

- (e) Access points for inspection and future maintenance and repair of building services and construction elements should be provided in accordance with the accepted plans;
- (f) 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; and
- (g) 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:

<b>BO/Building Regulations</b>	<b>Description</b>
Regulation 36 of Building (Planning) Regulations	To permit the omission / reduction in standard of natural lighting and ventilation in internal toilet
Regulation 29(1) and 29(2) of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations	To permit the provision of cleaning access to be other than cleaning eye
Regulation 44(4) of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations	To permit protection of cast iron pipes to be other than asphaltic coating
Regulation 50(2) of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations	To permit jointing of cast iron pipes to be other lead caulking

**Acceptance Conditions (Structural)  
for In-principle Acceptance Reference No. MiC 12/2020**

The in-principle acceptance (IPA) of MiC system (Model No. MIC-STEEL 01) of Unistress Building Construction Limited (聯力建築有限公司) 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 50.4 m;
  - (ii) Maximum modular units of 15 storeys;
  - (iii) Maximum design wind pressure of 2.59 kPa (unfactored);
  - (iv) Imposed loads, superimposed loads and assumed façade loads as shown on drawing no.: MIC-ST-001. Imposed loads for vehicular traffic and parking are not considered;
  - (v) Lateral stability is provided by the modular units and the in-situ reinforced concrete portions with an assumed stiffness;
  - (vi) Fabrication and installation tolerances of modular units as shown on drawing no.: MIC-ST-001;
  - (vii) Capacity of structural connection of modular unit as shown on drawing no.: MIC-ST-001; and

/(viii) ...

- (viii) No modular units are stacked more than one-storey above the completed level of each zone as shown on drawing no.: MIC-MS-001.
  
- (c) Structural details of in-situ reinforced concrete core wall, internal partition wall, external façade of modular units and roof floor slabs 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 12/2020 for MiC system (Model No. MIC-STEEL 01) of Unistress Building Construction Limited (聯力建築有限公司) are as follows:

Manufacturer: Unistress Building Construction Limited  
(聯力建築有限公司)

<u>Prefabrication Factory</u>	<u>Address of Prefabrication Factory</u>	<u>Production</u>
Green Build Precast Concrete Company Limited	中國廣東省惠州市惠陽區 永湖鎮老圍下村	Precast Concrete
Guangdong Kezu Steel Structure Design and Installation Co. Ltd.	No. 385-2, Helong 5 <sup>th</sup> Road Renhe Town, Baiyun District Guangzhou, People's Republic of China	Steel Structure & Fitting-out

*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 PNAP ADV-36;*
  - (ii) *Frequency and extent of audit by in-house staff and independent parties required in Appendix B of PNAP ADV-36; and*
  - (iii) *Measures for traceability of modular units from prefabrication factory to construction site.*