



Circular Letter No.: 2024.208

Issue Date: 21 June 2024

Application: BEAM Plus NB Version 2.0

Effective Date: 21 June 2024

MW 2 Modular and Standardised Design

1. The Technical Circular Letter hereby announces an update to the credit content for **MW 2 Modular and Standardised Design** under BEAM Plus NB v2.0.
2. The aim of the update is to clarify the following:
 - Inclusion of Compliance Method of CFA calculation; and
 - Update of submittal requirements.
3. The requirements given in Section 1.3 and Section 4.1 of the BEAM Plus NB v2.0 Manual (2023 Edition) are hereby updated with the enclosures in Annex A and Annex B of this Technical Circular Letter:
 - Page Annex A-1 shall replace the MW 2 contents in Section 1.3 Summary of Credits specified in Page 21 of the Manual; and
 - Pages Annex B-1 to B-3 shall replace all contents in Section 4.1 on MW 2 specified in Pages 201 to 202 of the Manual.
4. Approved PA projects: For projects that have already completed PA and have certain assessment approach approved, the Applicant may opt to adopt the same assessment criteria for FA or voluntarily comply with this Technical Circular Letter. For the avoidance of doubt, the Applicant shall provide PA evidence (e.g., extract of the PA report, documents submitted for assessment in PA, etc.) in subsequent assessments to support the intention of using the same assessment methodology as in PA.
5. For the ease of reading, the credit content in Pages Annex B-1 to B-3 of this Technical Circular Letter has incorporated the published FAQ #218 for MW 2. The Applicant shall observe the respective FAQ for the issue date.

A handwritten signature in black ink, appearing to read "Victor Cheung".

Ir Victor Cheung
Chairperson of Standards Sub-committee

Annex A:**Updated MW 2 Credit Content for Section 1.3 under BEAM Plus NB v2.0**

	Section	Credit Requirement	Extent of Application	Credit
		<p>2 BONUS credits for the reuse of 50% or more (by surface area) of superstructure elements (including at least floor, roof decking) & enclosure materials (including at least skin, framing).</p> <p>For exemplary performance, 1 additional BONUS credit for the reuse of 90% or more (by surface area) of superstructure elements (including at least floor, roof decking) & enclosure materials (including at least skin, framing).</p>		
MW 2	Modular and Standardised Design	<p><u>Compliance Method 1</u></p> <p>1 credit for designing modular elements which contributed at least 50% (by mass, volume, dollar value or surface area) of the major elements and modules in the project.</p> <p>Alternatively,</p> <p><u>Compliance Method 2</u></p> <p>1 credit for designing modular elements which contributed at least 50% by Construction Floor Area (CFA) of the development with typical floors design.</p> <p>For exemplary performance, 1 additional BONUS credit for designing modular elements which contributed 90% or more by:</p> <ul style="list-style-type: none"> • mass, volume, dollar value or surface area of the major elements and modules in the project; or • CFA of the development with typical floors design. 	All buildings except for a single one-storey building with total floor areas not exceeding 230m ²	1 + 1 additional BONUS
MW 3	Prefabrication	<p>(a) Structural Elements</p> <p>1 credit when 10% of structural elements has been prefabricated off-site.</p> <p>1 additional BONUS credit when 20% of structural elements has been prefabricated off-site.</p> <p>Alternatively,</p> <p>(b) Façade Elements</p> <p>1 credit when 10% of façade elements has been prefabricated off-site.</p> <p>1 additional BONUS credit when 20% of façade elements has been prefabricated off-site.</p>	All buildings	1 + 3 additional BONUS

Annex B:
Updated Credit Content for Section 4.1 under BEAM Plus NB v2.0
4 Materials and Waste 4.1 Use of Materials
MW 2 Modular and Standardised Design

Extent of Application	All buildings except for single one-storey buildings with total floor areas not exceeding 230m ²
Objective	Encourage the increased use of modular and standardised components in building design in order to enhance buildability and to reduce waste.
Credits Attainable	1 + 1 additional BONUS
Credit Requirement	<p><u>Compliance Method 1</u></p> <p>1 credit for designing modular elements which contributed at least 50% (by mass, volume, dollar value or surface area) of the major elements and modules in the project.</p> <p>Alternatively,</p> <p><u>Compliance Method 2</u></p> <p>1 credit for designing modular elements which contributed at least 50% by Construction Floor Area (CFA) of the development with typical floors design.</p> <p>For exemplary performance, 1 additional BONUS credit for designing modular elements which contributed 90% or more by:</p> <ul style="list-style-type: none"> • mass, volume, dollar value or surface area of the major elements and modules in the project; or • CFA of the development with typical floors design.
Assessment	<ol style="list-style-type: none"> 1. Provide all of the following supporting documents: <ol style="list-style-type: none"> 1.1. Specifications to demonstrate the extent of application of modular and standardised design of the major elements and modules; 1.2. Drawings or information to highlight the extent of application of modular and standardised design of the major elements and modules; and 1.3. Demonstration of the percentage of major elements and modules that are prescribed modular and standardised design elements and modules. 2. The unit may be mass/ volume/ dollar value/ surface area for Compliance Method 1 or CFA for Compliance Method 2 but shall be consistent throughout the assessment of this credit. If “surface area” is adopted as the assessment unit, only the areas of the element that are exposed to air (i.e. excluding those concealed areas) shall be counted. 3. The calculation sheet on modular and standardised design shall be reviewed and endorsed by the contractor(s). The qualified personnel from the contractor(s) are: <ol style="list-style-type: none"> 3.1. The contractor’s quantity surveyor who possesses the following qualification: <ol style="list-style-type: none"> 3.1.1. A Corporate Member of The Hong Kong Institute of Surveyors (HKIS) in QS Discipline; or

- 3.1.2. A Chartered Member of Royal Institution of Chartered Surveyors (RICS) in QS Discipline; or
- 3.1.3. A Corporate/ Certified/ Full Member of other International Institute of Surveyors in QS Discipline; or
- 3.2. The contractor's project manager who supervises the Project QS, monitors the use of materials, and possesses the following qualification or experience :
- 3.2.1. A Corporate Member of Hong Kong Institute of Construction Managers (HKICM); or
- 3.2.2. A Chartered Member of Chartered Institute of Building (CIOB); or
- 3.2.3. A Corporate/ Certified/ Full Member of other International Institute of Construction Managers in QS Discipline; or
- 3.2.4. At least 10 years of construction-related experience.

CV of the personnel and organisation chart highlighting the personnel shall be submitted to demonstrate the personnel has fulfilled the above-mentioned requirements.

4. Extent of modular and standardised design checklist:

Structural Elements	<ul style="list-style-type: none"> • Structural beam system • Concrete slab • Concrete flooring
Façade Elements	<ul style="list-style-type: none"> • External wall • Cladding unit • Bay window (for residential buildings) • Utility platform/ balcony (for residential buildings)
Architectural/ Internal Building Materials	<ul style="list-style-type: none"> • Internal partition/ wall panels • Door sets • Staircases

Submittals

Supporting Documents <i>Please provide softcopies with filename prefix as indicated on the leftmost column below.</i>		PA	CA	FA/ RFA
MW_02_00	BEAM Plus NB submission template for MW 2	✓	✓	✓
MW_02_01	Specifications that demonstrate the extent of application of modular or standardised design	✓	-	-
MW_02_02	Drawings or information that demonstrate modular or standardised design	✓	✓	✓

MW_02_03	Calculation Sheet on modular and standardised design [Appendix A]	✓	✓	✓
	with endorsement from the contractor(s); and CV of the personnel; and Organisation chart highlighting the personnel	-	✓	✓
MW_02_04	Extract of relevant page(s) from the GBP showing the building(s) is/ are single one-storey building(s) with total floor areas not exceeding 230m ² (substantiation for non-applicability only)	✓	✓	✓

Remarks**(a) Additional Information**

International Standard Organization. ISO 1006 Building construction – Modular coordination – Basic module (1983) and ISO 2848 Building Construction – Modular coordination – Principles and rules (1984) recommend that modular components shall be designed to have size of a multiple or subdivision of the basic module.

British Standards Institution. British Standard BS 6750. Specification for Modular coordination in building (1986) provides background on the requirements for modular coordination.

Development Bureau. Standardised Components and Practices gives guidance on accessing and locating standardised components and modular components that have been successfully used in construction, and finding out the standardised practices, including standard designs, construction methods, and techniques adopted in the construction industry. This contains a standardisation database of hyperlinks which promotes the wider use of standardised and modular components in local construction, with the public sector taking the lead. [ONLINE]. Available at: http://www.devb.gov.hk/en/publications_and_press_releases/publications/standardised_components_and_practices/index.html. [Accessed April 2021].

(b) Related Credit

None