

**For discussion
on 26 November 2024**

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

Promoting Elderly-friendly Building Design

PURPOSE

To encourage ageing in place, the Task Force on Promoting Elderly-friendly Building Design (the Task Force) led by the Deputy Financial Secretary has formulated a series of design requirements for application to both public and private sector building projects. As mentioned in the 2024 Policy Address, the Government will promulgate proposals within 2024 for phased implementation. This paper briefs Members on the proposals and invites views and suggestions.

BACKGROUND

2. With increased life expectancy, Hong Kong's population is ageing quickly. As projected by the Census and Statistics Department (C&SD), the percentage of the elderly (i.e. aged 65 and above) in the total population is expected to gradually increase from 20.8% in mid-2022 to 25.3% in 2028, and would reach 30.4% in 2037. According to C&SD, 39.3% of elderly either live alone or with spouse who is likely to be an elderly person as well. To encourage ageing in place through elderly-friendly building design, the Government has undertaken to put forth in late 2024 proposals to incorporate more comprehensively the concepts of universal design and accessibility into Buildings Department (BD)'s Design Manual: Barrier Free Access (DM) and relevant regulations and guidelines.

3. The terms of reference and membership of the Task Force are at **Annex A**. The Task Force has –

- (a) taken stock of and reviewed the existing statutory and administrative regulations and requirements for elderly-friendly building design;
- (b) conducted research on practices and requirements in other jurisdictions;

- (c) solicited initial views from targeted stakeholders;
- (d) drawn up proposals on elderly-friendly building design; and
- (e) considered the scope of application and means of implementation.

EXISTING SITUATION AND APPROACH OF REVIEW

(A) Requirements in Hong Kong

4. At present, while there are no statutory building requirements specifically tailored for the elderly, barrier-free design requirements for private buildings stipulated in the Building (Planning) Regulations (B(P)R) under the Buildings Ordinance (Cap. 123) (BO) can also benefit elderly users in addition to persons with disability. Such design requirements covering aspects like accessible parking spaces, public passages, corridors, doors, doorways, ramps, toilets, steps and staircases, handrails, lifts, illumination, etc. can also make buildings and facilities more elderly-friendly.

5. Apart from stipulating **mandatory** design requirements in the B(P)R, the government also sets out recommended (i.e. non-mandatory) design requirements in the DM. The DM has a specific chapter focusing on design guidelines for the elderly, covering various **recommended** elderly-specific design requirements such as the provision of resting area in long corridors or pedestrian walkways, the use of slip-resistant floor finishes and non-shiny and reflective floors, uniform illumination in all spaces, provision of folding chairs in bathrooms, etc.

6. To encourage the adoption of elderly-friendly building design, gross floor area (GFA) concessions are granted to building features catering to the needs of users including the elderly, such as wider internal common corridors, larger lift car and wider outdoor covered walkway. Additionally, elderly-friendly building design is one of the pre-requisites laid down in the relevant Practice Notes¹ for obtaining GFA concessions under BEAM Plus (please refer to **Annex B** for details on BEAM Plus)².

¹ Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-151.

² It works as follows – while GFA concessions will be granted to projects achieving “anticipated gold” rating or above, those with a lower rating may also be eligible for GFA concession, subject to compliance with

7. The industry has increasingly recognised the importance of creating living spaces that cater to the needs of the ageing population. The Hong Kong Housing Society (HKHS) is one of the leaders in this field, incorporating elderly-friendly design principles in its housing projects and community initiatives³. Some private developers also recognise the growing market demand and acknowledge the commercial viability in developing elderly-friendly residential developments. For example, a developer has strengthened support and care services for elderly residents in their residential projects through partnership with non-government organisations and an operator of integrated residential care homes, day and residential care as well as rehabilitation services.

(B) Requirements in other jurisdictions

8. With the assistance of a consultant⁴, we have conducted research on local standards / best practices / guidelines as well as the design requirements of elderly-friendly buildings or facilities in Mainland China, Singapore, Japan, Australia, the United Kingdom and Canada. The key findings are as follows

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- (a) The features covered in Hong Kong’s existing elderly-friendly building design generally align with those covered by other jurisdictions. For example, provision of maneuvering spaces, requirement on access route and accessible lift car dimension appear both in Hong Kong’s regime and in some jurisdictions;

one or two specific standard(s) to promote a quality built environment as complement. “Health and Well-being” is one such standard, meaning that elderly-friendly design such as automatic door to main building entrance, resting facilities in long corridors and passenger lifts, fitness facility for the elderly, enlarged lift car for ambulance operation, etc. will also render a project with BEAM Plus rating lower than “anticipated gold” eligible for GFA concessions.

³ This includes incorporating age-friendly concepts into their housing designs; offering a range of support services and community resources through the establishment of the Elderly Resources Centre; and publishing the “Universal Design Guidebook For Residential Development in Hong Kong” which includes provision of spatial design guidelines for the elderly and practical renovation strategies for existing apartments to enhance their suitability for elderly residents.

⁴ BD commissioned in February 2024 a consultant to conduct a comprehensive review of the DM and pertinent legislation. The review is being taken forward in stages with priority accorded to the part on elderly-friendly building design for residential buildings, composite buildings and commercial premises often patronised by the elderly. The part on the building design for persons with disabilities will be proceeded afterwards.

- (b) Most jurisdictions govern elderly-friendly building design requirements for common areas only (except Mainland China and Australia which mandates certain designs for internal / private units as well); and
- (c) Means of implementation: Hong Kong mainly adopts a non-statutory approach (e.g. incentivised through GFA concessions or promotion as recommended best practices in DM), while other jurisdictions are enforcing elderly-friendly building design through a mix of legislative⁵ and administrative approaches⁶.

(C) Stakeholders' initial views

9. We have engaged targeted stakeholders to tap their views in formulating the initial proposals, such as the Elderly Commission, Hong Kong Council of Social Service, academic institutions, Real Estate Developers Association of Hong Kong, Hong Kong Institute of Architect, Hong Kong Institute of Surveyors, etc. Stakeholders generally share the need to create more **accessible** and **safe** living environment to help elderly overcome the challenges that come with ageing, including mobility issues, cognitive decline and social isolation. Many of them support the incorporation of **adaptable design** principles into the living environment of the elderly to promote independent living and reduce the need for costly renovations. They emphasise the importance of **social inclusion** and **community engagement**, such as creating open spaces better attuned to elderly's needs to foster social interaction. In addition, stakeholders stress the importance of **gerontechnology** tailored to the specific needs of the elderly, such as smart home devices, wearable sensors, and telehealth platforms.

RECOMMENDATIONS

10. Taking into account the above, the Task Force has come up with the recommendations on elderly-friendly building design as described in the ensuing paragraphs. When drawing up the proposals, the Task Force is guided by the following considerations –

⁵ For example, provision of slip-resistant floor finishes in outdoor / common areas is a mandatory requirement in Mainland China and most overseas countries. Provision of automatic main entrance door is a mandatory requirement for Singapore. Such features currently appear in the DM as recommended practices in Hong Kong.

⁶ For example, provision of handrail along corridor is a recommended requirement in Mainland China and Japan implemented by guidelines.

- (a) The objectives of elderly-friendly building design are three-fold. First, the building structures and design should provide a **safe and comfortable** place for the elderly who may gradually experience declining abilities. Second, the design should promote **active ageing** by giving the elderly a sense of autonomy and independence without the help of others for as long as possible. Third, the design should promote the elderly's **well-being**, in particular social interaction among the elderly and between the elderly and other age groups;
- (b) Different types of buildings have specific target users in mind, and some buildings may not be frequently patronised by the elderly. The needs of the elderly and those of other users should be properly balanced in implementing the concept of ageing in place;
- (c) We have to take into account the practical considerations of the market and the industry when preparing the design proposals. For instance, there may be concerns as to whether configuring the designs to cater for the elderly's needs could entail additional cost (e.g. more protective materials, reduced GFA for other uses); and
- (d) Given (b) and (c) above, we would apply the design requirements to residential and composite⁷ buildings, as well as commercial premises often patronised by the elderly (e.g. shopping complex and clinic). Furthermore, the more "**critical**" requirements (**notably safety-related**) are to be mandated whereas others could be implemented administratively through guidelines and incentives.

Four Categories of Design Requirements

11. The recommended design requirements can be grouped under four categories, namely (a) **mobility and accessibility**, (b) **design adaptability**, (c) **well-being**, and (d) **gerontechnology**. A full list of the requirements is at **Annex C** with illustrations at **Annex D**. All the requirements at Annex C will be applicable to **residential buildings** and the domestic part of composite buildings, while the requirements for common areas will also apply to **commercial buildings** and the non-domestic part of composite buildings save

⁷ Composite building means a building that is partly domestic and partly non-domestic. For example, domestic tower(s) resting on a shopping complex occupying the first few storeys.

a few exceptions⁸. The ensuing paragraphs provide a summary of the key requirements.

(A) Mobility and Accessibility: Promoting Accessibility to Enhance Elderly Mobility (Common Area and Private Area Inside Residential Unit)

12. The elderly's functional capacity (such as muscular strength, balancing, vision and hearing) often declines gradually as ageing progresses, which can increase the risk of accidents and injuries. One crucial factor for ageing in place is to ensure **safe mobility** and **accessibility** of the built environment, **both inside and beyond the residential unit**. Therefore, many of proposed features under this category are proposed to be mandated.

13. Within the residential unit, a wider entrance door and a lower entrance door threshold would enhance wheelchair accessibility and reduce the risk of stooping. Slip-resistant floor finishes in the kitchen and toilet/bathroom can improve safety by reducing the risk of slipping and falling. A sliding/folding/double swing door at toilet/ bathroom and the shower compartment would allow for easier passage.

14. For accessibility within a building / housing estate, the provision of an automatic door for main building entrance, larger lift cars with mirror at rear wall, wider indoor common corridors and outdoor covered walkways, slip-resistant floor finishes for common areas, as well as main circulation staircases with wider treads and lower risers can help elderly move around more safely and easily, regardless of their mobility. Other proposed requirements addressing elderly's muscular and visual limitations and creating greater daily convenience include clear signage and floor numbering, well-lit common areas, handrails along corridors, wider canopy projecting from main building entrance, etc.

(B) Design Adaptability: Adoption of Adaptive Design to Facilitate Subsequent Modification (Private Area Inside Residential Unit)

15. As an individual's living needs and preferences can shift throughout the course of lifespan, allowing for flexibility in modification of residential units without the need of structural alteration is a crucial step towards ageing

⁸ The exceptions are items B7 (wider corridor) and F2 (provision of elderly-friendly equipment / facilities in Residential Recreational Facilities (RRF)) at Annex C. Item B7 only applies to domestic buildings or domestic part of composite buildings, as non-domestic part of composite buildings and commercial buildings are generally able to meet the requirement. Item F2 only applies to domestic buildings or domestic part of composite buildings as RRF could only be found in domestic buildings or domestic part of composite buildings.

in place. Providing design adaptability in a home environment can accommodate evolving needs and preferences over time while obviating the need for relocation at old age. This enables elderly to stay in the same and familiar place as they age, thus maintaining their family and community connections.

16. Since not all residential units are intended for the elderly, it may not be necessary to apply upfront all the elderly-friendly building design requirements to the residential units. In this connection, we propose as **recommended best practice** that residential units of a development should take into account the ease and cost of alteration for accommodating the elderly-friendly building design, namely **future conversion without structural alteration** to accommodate the following elderly-friendly enabling design requirements (e.g. the placement of structural walls and columns shall be carefully considered in design stage to allow future conversion like widening doorway/corridor without the need of structural alteration) such that occupants can customise and reconfigure their living spaces in alignment with their changing needs and preferences. Such adaptable designs include –

- (i) features that would **reduce safety risks** (e.g. installation of shower seat and handrail/grab bars in toilet or shower area, low threshold or curbless walk-in shower);
- (ii) features to cater for elderly on **wheelchair** (e.g. lower door viewer on the main entrance door, minimum width for internal doors, wider corridor and manoeuvring area); and
- (iii) features to improve **daily convenience** (e.g. restrict the depth of counter-top in kitchen).

(C) Enhancing Elderly Well-being (Common Area and Private Area Inside Residential Unit)

17. Design proposals relating to well-being aim to promote a sense of contentment, encourage social participation and enhance intergenerational interaction and harmony. Convenient and easy access to recreational facilities and a greater connection with nature can significantly improve the health, social engagement and quality of life of the elderly. By incorporating design elements and amenities such as **elderly-friendly equipment / facilities** (e.g. elderly-friendly toilet, fitness equipment for the elderly) at sky garden and residential recreational facilities (RRF), **resting facilities** at covered public open space and common corridors / lift lobbies, a more pleasing environment

can be created to encourage the elderly to stay socially connected.

18. **Larger windows** have been shown to boost mood and reduce feelings of depression and anxiety. The sensory experiences of being outside, such as seeing greenery, listening to birdsongs and feeling the breeze, can also have a calming and restorative effect. Installing **planters for community farming** can help the elderly engage with nature. Such interaction can be particularly beneficial for seniors experiencing cognitive decline, as it can help improve focus, memory, and overall cognitive function.

(D) Facilitating Adoption of Gerontechnology (Common Area and Private Area Inside Residential Unit)

19. Effective use of technology is not only a solution to elderly care but also an “enabler” for the elderly to lead a more independent life. Gerontechnology helps elderly with declining capacities to support themselves. Hardware and software applications to assist the elderly and/or their carers are under rapid development, and the elderly are becoming more technologically literate. By integrating assistive technologies into daily life, the elderly can overcome certain physical limitations, maintain cognitive function, and access vital services more easily. Some intelligent devices may also help detect accidents of unattended elderly. The common types of gerontechnology for the elderly include smart card system for main entrance, mail box, flat entrance as well as Global Positioning System (GPS) for location identification; water flow sensor; call caring services; motion sensor; artificial intelligence and robotic support; remote gas heater control; and door sensor.

20. The adoption of gerontechnology requires a robust and accessible infrastructure that supports both technological and social integration. This includes **high-speed internet access** in homes and public spaces. We propose to encourage the presence of enabling works (such as provision of duct and conduit system for common areas and private residential units) for high speed and stable internet provision (e.g. fifth generation mobile (5G)), GPS and Radio Frequency Identification (RFID).

Implementation Mechanism

21. In order to balance the growing need for elderly-friendly building design against practical considerations of the market and the industry, including cost and flexibility in design, as well as the needs of other users, we suggest a two-level arrangement to implement the proposed design requirements mentioned in paragraphs 12 to 20 above –

- (a) **Mandatory features:** Mandatory features to be enforced through amendments to B(P)R are those considered **essential** for better ensuring the safety and mobility of the elderly, and those that could be implemented without great difficulty. Most of the features in paragraphs 12 to 14 above are proposed to be mandated. Non-compliance of mandatory requirements will result in the Building Authority (BA) refusing to approve building plans;
- (b) **Encouraged features:** These are desirable features worth promoting yet flexibility should be allowed for the market to consider adoption at its own pace. They are generally set out in paragraphs 15 to 20 above, which can be implemented through the following means -
- (i) *Promoted features through the offering of incentives by Government:* certain features (e.g. provision of elderly-friendly equipment / facilities and / or resting facilities) can be implemented by administrative means through updating relevant **Practice Notes** and through **incentives** such as GFA concessions and / or site coverage exemptions. To contain the effect on the building bulk, an overall cap of 10% will generally be imposed on the total amount of GFA concessions. For instance, subject to overall cap of 10%, BD will grant GFA concession for RRF in which elderly-friendly equipment / facilities are provided. Such RRF with elderly-friendly equipment / facilities will also be allowed to connect with sky garden⁹ so as to provide more varieties of communal space for neighborhood activities and intergenerational interaction within the building; and/or
- (ii) *Recommended best practices:* In order to contain the effect on the building bulk, there should be a limit on items that could qualify for GFA concession. Besides, some of the proposed features do not take up GFA (e.g. provision of signs for elderly-friendly facilities) thus rendering GFA concession irrelevant. With this in mind, other desirable features will be promoted by including them as recommended best practices in the DM. For example, we recommend that residential units in a development should be readily convertible without structural alteration to a layout

⁹ Currently, GFA for sky garden may be exempted but it is not allowed to connect with RRF due to concerns about potential misuse, privatisation, and reduced accessibility for residents. The new policy allows connections under specific conditions, including clear demarcation of areas, proper management, etc. to ensure the sky garden remains a shared amenity while offering design flexibility for provision of elderly-friendly equipment/ facilities to enhance the well-being of the elderly. This also allows for more effective utilisation of the sky garden, creating a more vibrant and appealing amenity for residents.

meeting the requirements in design adaptability as proposed in paragraph 16 above. However, as different developments may target for different clientele, we consider it best for developers to decide on the appropriate mix and will not stipulate a minimum percentage. As a vehicle to drive incorporation of recommended best practices, we will liaise with the Hong Kong Green Building Council and the BEAM Society Limited to set up a **voluntary accreditation scheme** under BEAM Plus¹⁰ to give recognition to projects fulfilling specified elderly-friendly building design requirements.

22. The proposed mandatory requirements for elderly-friendly building design will apply to **new** private residential buildings, composite buildings and commercial premises often patronised by the elderly (including shopping complex and clinic), as well as **alterations and additions (A&A)** (insofar as they are feasible and applicable) to existing private residential buildings, composite buildings and commercial premises often patronised by the elderly, effective upon a date to be specified by the Secretary for Development after the enactment of the amended B(P)R¹¹. Existing buildings completed before the effective date are not required to be upgraded to fulfil the new mandatory requirements, until the buildings undergo A&A. In line with established practice, only the areas affected by the proposed A&A works will need to comply with the new mandatory requirements under the amended B(P)R. The parts of the building not subject to the proposed A&A works need not follow the amended B(P)R. For example, if the A&A works do not involve the alteration of the existing main entrance door, the new requirement for the provision of automatic door at main entrance will not apply. If there are justifiable reasons or special circumstances, exemption from or modification of the regulations can be considered by the BA based on individual case merits under the existing mechanism.

23. Public sector projects such as public housing developments and government buildings will also be administratively applied to the proposed

¹⁰ Under BEAM Plus, among the seven assessment aspects, one is “Health and Well-being” encompassing various environmental aspects of indoor / outdoor environment which have an impact on the health, comfort or wellbeing of the occupants and neighbours, including daylight access, air quality, ventilation, and thermal comfort, etc.

¹¹ The mandatory requirements under the amended B(P)R will apply to private buildings works (including new and A&A works) not yet started or consent to their commencement not yet given as at the date of the coming into operation of the amended B(P)R. Where, as at the date of the coming into operation of the amended B(P)R, building works are being carried out or consent to commencement of building works has been given, the pre-existing B(P)R shall apply.

mandatory requirements wherever applicable and feasible¹².

24. We consulted the Land and Development Advisory Committee comprising representatives from professional bodies and the industry¹³ on the above proposals in October 2024. Members were generally supportive.

WAY FORWARD

25. We will –

- (i) further consult stakeholders on specific proposals set out in this paper in the next two months; and
- (ii) subject to any fine-tuning, implement the proposals in two stages, first administratively by updating the Practice Notes and DM and launching a voluntary accreditation scheme in the first half of 2025, to be followed by amending the B(P)R in the first half of 2026.

ADVICE SOUGHT

26. Members are invited to offer views on the above proposals.

Development Bureau November 2024

¹² Single family houses, temporary buildings, transitional housing, light public housing and New Territories Exempted Houses will be exempted given their transitional or unique nature.

¹³ They include representatives from the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Landscape Architects, the Hong Kong Institute of Planners, the Hong Kong Institute of Real Estate Administrators, the Hong Kong Institute of Surveyors, the Hong Kong Institute of Urban Design, the Real Estate Developers Association of Hong Kong and the Hong Kong Construction Association.

Terms of Reference

To steer the formulation of proposals on elderly-friendly building design, including:

1. To identify room for improvement in existing practices.
2. To collect views from stakeholders and oversee research and consultancy study.
3. To steer the areas to be reviewed having regard to research findings and feedback from stakeholders.
4. To put forward recommendations to strengthen and enhance the relevant regulations and guidelines, including incorporating more comprehensively the concepts of universal design and accessibility into the Buildings Department's Design Manual: Barrier Free Access.

Membership

Head

Deputy Financial Secretary

Members

Secretary for Development or her representative

Secretary for Housing or her representative

Secretary for Labour and Welfare or his representative

Permanent Secretary for Housing/Director of Housing or her representative

Director of Architectural Services or his representative

Director of Buildings or her representative

Chief Executive Officer and Executive Director of Hong Kong Housing

Society or his representative

Secretary

Principal Assistant Secretary (Planning and Lands) 3, Development Bureau

Existing Accreditation for Green and Sustainable Buildings

1. A distinctive building environmental assessment method for the Hong Kong environment, called “BEAM Plus”¹ label, was launched on 1 April 2010. It is a voluntary scheme that gives recognition ratings to green and sustainable buildings. The purpose of BEAM Plus is to set out a series of best practices (above statutory requirements) that enable the building industry to create more sustainable buildings. By sustainable, it means that the buildings would foster the health and wellbeing of human beings while caring for the local and global environments. By providing a fair and objective assessment of a building's overall performance, BEAM Plus enables organisations and companies of all sizes to demonstrate their commitment to sustainable development. BEAM Plus certification is awarded by the Hong Kong Green Building Council (HKGBC)² and assessed by the BEAM Society Limited (BSL)³.

2. The BEAM Plus scheme is mainly divided into New Buildings (NB)⁴ and Existing Buildings (EB) categories. NB focuses on design and construction of the building while EB focuses on operation and management of the building. The assessment of building performance for NB comprises seven performance aspects including energy use, integrated design and construction management, health and wellbeing, sustainable sites, materials and waste, innovations and additions as well as water use. On the health and wellbeing aspect which focuses on the human environmental quality, the core objectives include design for green living, inclusive design; and indoor environmental quality. The concept of inclusive design which allows users to enjoy spaces safely, easily and with dignity, and ensure efficient services to meet their needs is relevant to the elderly-friendly building design.

¹ The name of “BEAM” originated from the Building Environmental Assessment Method.

² HKGBC is a limited company inaugurated in 2009 and is a specified public body under the Prevention of Bribery Ordinance (Cap. 201). It is the leading body driving the promotion and creation of sustainable buildings and standards throughout Hong Kong, and engaging the community, industry and Government to create a greener, more sustainable environment.

³ BSL is a limited company and a specified public body under the Prevention of Bribery Ordinance. It is a key partner of HKGBC in BEAM Plus and BEAM Practitioner schemes. HKGBC works closely with BSL in the rating tool development work and entrusts BSL with BEAM Plus project assessment, as well as training and examination of BEAM Practitioners.

⁴ BEAM Plus NB covers all types of new buildings, from small single buildings to large development, regardless of whether they are residential, commercial, industrial or other types of development.

3. Based on the credit achievement where the standard or defined performance criteria are satisfied, the project will be graded Platinum, Gold, Silver or Bronze, to reflect the overall performance.

4. BD announced through the Practice Note “PNAP APP-151” on 28 September 2023 that starting from 30 June 2024, building projects will generally need to achieve an anticipated Gold rating under the BEAM Plus in order to be eligible for gross floor area (GFA) concessions for green and amenity features. This effectively encourages the industry to strive for Gold or above certification. If a project could only achieve anticipated Silver or Bronze rating, it has to demonstrate compliance with one or more “specific standard(s)”⁵ set by BD to qualify for the GFA concessions.

5. At present, there is no accreditation regime focusing specifically on elderly-friendly building design in Hong Kong.

⁵ Specific standards include (a) enhanced greenery provision; (b) health and well-being; (c) enhanced natural ventilation; (d) adoption of Building Information Modelling (BIM) in plan submission; and (e) adoption of multi-trade integrated mechanical, electrical and plumbing in building services (MiMEP).

Proposed Elderly-friendly Building Design

Note: The following proposed features apply to residential and the domestic part of composite buildings. For features relating to common parts, they also apply to the non-domestic part of composite buildings and commercial buildings often patronised by the elderly (including shopping complex and clinic) except otherwise specified.

(A) Mobility and Accessibility: Promoting Accessibility to Enhance Elderly Mobility

Mandatory Requirements

(I) Private Area Inside Residential Unit

Location	Building Features	Proposed Features	Remarks
Entrance of Private Flats	A1. Wider entrance door	Mandatory: <ul style="list-style-type: none"> ● Entrance door shall have a clear width of not less than 850 mm. <p style="text-align: right;"><i>(B(P)R and DM)</i></p>	Existing promoted feature through incentives ¹ upgraded to mandatory requirement.
	A2. Threshold of entrance door	Mandatory: <ul style="list-style-type: none"> ● Entrance door threshold shall not exceed 15 mm in height, have a bevelled and round edge on each side at gradient not steeper than 1:2. <p style="text-align: right;"><i>(B(P)R and DM)</i></p>	New proposed standard (there is no existing mandatory requirement / promoted feature through incentives / recommended best practice).
Wet Areas of Private Flats including Toilet and Kitchen	A3. Slip – resistant floor finishes	Mandatory: <ul style="list-style-type: none"> ● The wet areas shall have slip-resistant floor surface. <p style="text-align: right;"><i>(B(P)R and DM)</i></p>	Existing recommended best practice in DM upgraded to mandatory requirement.

¹ One of features under specific standard on “Health and well-being” (Complement BEAM Plus rating as pre-requisite for granting GFA concession, PNAP APP-151).

(II) Indoor Common Area (Horizontal Circulation)

Location	Building Features	Proposed Features	Remarks
Main Building Entrance	B1. Automatic door	Mandatory: <ul style="list-style-type: none"> At least one of the main entrances of a residential building shall be provided with automatic door. (B(P)R and DM) 	Existing promoted feature through incentives ² upgraded to mandatory requirement, which tally with the existing mandatory requirement for commercial buildings.
Accessible Routes ³ : Corridor / Path and Lobby / Lift Lobby, etc.	B2. Well-lit common area (minimum lux level requirement)	Mandatory: <ul style="list-style-type: none"> Common areas such as lift lobby of upper floors, corridors, paths and staircases shall have an illumination level of not less than 120 lux. (B(P)R and DM) 	Existing mandatory requirement upgraded from 85 lux to 120 lux, which is an existing recommended best practice in DM.
	B3. Wider corridor / path	Mandatory: <ul style="list-style-type: none"> The clear width of corridor / path shall be not less than 1 200 mm. (B(P)R and DM) 	Existing mandatory requirement upgraded from 1 050 mm to 1 200 mm wide, which is an existing recommended best practice in DM.
	B4. Slip – resistant floor finishes	Mandatory: <ul style="list-style-type: none"> All corridors and lobbies shall have slip-resistant floor surface. (B(P)R and DM) 	Existing recommended best practice in DM upgraded to mandatory requirement.
	B5. Wider door	Mandatory: <ul style="list-style-type: none"> Door shall have a clear width of not less than 850 mm. (B(P)R and DM) 	Existing mandatory requirement upgraded from 800 mm to 850 mm.
	B6. Door threshold	Mandatory: <ul style="list-style-type: none"> Door threshold shall not exceed 15 mm in height, have a bevelled and round edge on each side at gradient not steeper than 1:2. (B(P)R and DM) 	Existing mandatory requirement upgraded from not exceeding 20 mm to not exceeding 15 mm.

² Provision of automatic main entrance door for domestic / composite buildings is one of features under specific standard on “Health and well-being” (Complement BEAM Plus rating as pre-requisite for granting GFA concession, PNAP APP-151).

³ Accessible route is a continuous unobstructed path which is easily identifiable for the elderly to approach, enter and leave the building and to use the facilities therein without assistance or undue difficulties.

(III) Indoor Common Area (Vertical Circulation)

Location	Building Features	Proposed Features	Remarks
Lift car	C1. Larger lift car	<p>Mandatory:</p> <ul style="list-style-type: none"> ● Accessible lifts shall have minimum internal car dimension of 1.2m x 1.4m (width/depth). <p><i>(B(P)R and DM)</i></p>	Existing mandatory requirement upgraded from “1.1m x 1.2m” to “1.2m x 1.4m” (width/depth).
	C2. Mirror at rear wall of lift car	<p>Mandatory:</p> <ul style="list-style-type: none"> ● Mirror-like finishes surface shall be provided at rear wall of the lift car. <p><i>(B(P)R and DM)</i></p>	Existing recommended best practice in DM upgraded to mandatory requirement.
Main Circulation Staircases (e.g. internal staircase at club house for residential development)	C3. Lower risers and wider treads	<p>Mandatory:</p> <ul style="list-style-type: none"> ● Treads not less than 300 mm in width and risers not more than 150 mm in height. <p><i>(B(P)R and DM)</i></p>	Existing mandatory requirements for treads and risers upgraded from 225 mm to 300 mm wide and from 175 mm to 150 mm high respectively, which are an existing promoted feature through incentives ⁴ .
	C4. Dual-level handrails	<p>Mandatory:</p> <ul style="list-style-type: none"> ● The top of upper handrail shall be at a height of not less than 850 mm and not more than 950 mm above the floor. ● The lower handrail shall be at a height of not less than 700 mm and not more than 800 mm above the floor. ● There shall be no less than 150 mm separation between the top of upper handrail and the top of lower handrail. <p><i>(B(P)R and DM)</i></p>	New proposed standard ⁵ (there is no existing mandatory requirement / promoted feature through incentives / recommended best practice).

⁴ Internal circulation staircase with treads not less than 300 mm in width and riser not more than 150 mm in height is one of features under specific standard on “Health and well-being” under PNAP APP-151.

⁵ Provision of one more handrail (provision of a single handrail is an existing mandatory requirement) for **school** and **places of public entertainment** is a recommended best practice in DM.

(IV) Outdoor Common Area

Location	Building Features	Proposed Features	Remarks
Outdoor Space	D1. Slip – resistant floor finishes	Mandatory: <ul style="list-style-type: none"> ● Outdoor space shall have slip-resistant floor surface. <p style="text-align: right;"><i>(B(P)R and DM)</i></p>	Existing recommended best practice in DM upgraded to mandatory requirement.
Main Circulation Staircases	D2. Lower risers and wider treads	Mandatory: <ul style="list-style-type: none"> ● Treads not less than 300 mm in width and risers not more than 150 mm in height. <p style="text-align: right;"><i>(B(P)R and DM)</i></p>	Existing mandatory requirements for treads and risers upgraded from 280 mm to 300 mm wide and from 160 mm to 150 mm high respectively.
(e.g. outdoor staircase)	D3. Dual-level handrails	Mandatory: <ul style="list-style-type: none"> ● The top of upper handrail shall be at a height of not less than 850 mm and not more than 950 mm above the floor. ● The lower handrail shall be at a height of not less than 700 mm and not more than 800 mm above the floor. ● There shall be no less than 150 mm separation between the top of upper handrail and the top of lower handrail. <p style="text-align: right;"><i>(B(P)R and DM)</i></p>	New proposed standard (there is no existing mandatory requirement / promoted feature through incentives / recommended best practice).

Encouraged Features

(I) Private Area Inside Residential Unit

Location	Building Features	Proposed Features	Remarks
Toilet / Bathroom & Shower of Private Flats	A4. Types of Door	Recommended Best Practice: <ul style="list-style-type: none"> ● Provision of sliding / folding / double swing doors⁶. (DM) 	Existing recommended best practice in DM updated to include the alternatives of sliding door.

(II) Indoor Common Area (Horizontal Circulation)

Location	Building Features	Proposed Features	Remarks
Accessible Routes: Corridor / Path and Lobby / Lift Lobby, etc.	B7. Wider corridor / path <i>(only applicable to domestic buildings or domestic part of composite buildings, as non-domestic part of composite buildings and commercial buildings are generally able to meet the requirement)</i>	Promoted Feature through Incentives: <ul style="list-style-type: none"> ● If common corridor(s) with clear width more than 1 200 mm are provided, the requirement of natural ventilation for granting Gross Floor Area (GFA) concession will <u>not be required</u>. (JPNI) 	GFA concession requirement <u>relaxed</u> by allowing wider corridor in place of natural ventilation.
	B8. Signs for elderly-friendly facilities and floor numbering	Recommended Best Practice: <ul style="list-style-type: none"> ● Clear sign with bigger font size and greater colour contrast shall be provided for elderly-friendly facilities and floor numbering. (DM) 	<u>New</u> proposed standard.

⁶ Folding doors of 750mm clear opening width are currently provided for Type A flats (1-person/2-person) in **public housing** developments. For other larger size flat types for families, single swing doors of 750mm clear opening width are provided to suit general preference of majority families considering that the elderly might be taken care of by family members. If necessary, the family could consult estate management on the replacement of the swing door with sliding / folding doors.

Location	Building Features	Proposed Features	Remarks
	B9. Provision of Handrail	Recommended Best Practice: <ul style="list-style-type: none"> ● Handrails shall be provided along corridors. <i>(DM)</i>	<u>New</u> proposed standard.

(III) Indoor Common Area (Vertical Circulation)

Location	Building Features	Proposed Features	Remarks
Lift car	C5. Larger lift car	Promoted Feature through Incentives: <ul style="list-style-type: none"> Certain percentage of relevant lift shaft area can also be exempted from Site Coverage (SC) calculations. The lift shaft area exempted from GFA calculations will not be subject to 10% GFA cap⁷. <i>(PNAP APP-89)⁸</i> Enlarged fireman’s lift with minimum internal car dimensions of 1.5m x 1.6m (width/depth) for ambulance operation is one of features under specific standard on “Health and well-being”. <i>(Complement BEAM Plus rating as pre-requisite for granting GFA concession, PNAP APP-151)</i> 	<ul style="list-style-type: none"> Existing promoted feature through incentives relaxed - apart from not subjecting to the 10% GFA cap, SC exemption would also be granted. Same as existing promoted feature through incentives.
		Recommended Best Practice: <ul style="list-style-type: none"> Clear depth of an accessible lift shall be not less than 1.5 m. <i>(DM)</i> 	Same as existing recommended best practice in DM.
	C6. Seating within lift car	Promoted Feature through Incentives: <ul style="list-style-type: none"> Provision of resting facilities (e.g. seats including folding seats or lean on railings) within the lift cars is one of features under specific standard on “Health and well-being”. <i>(Complement BEAM Plus rating as pre-requisite for granting GFA concession, PNAP APP-151)</i> 	Same as existing promoted feature through incentives.
		Recommended Best Practice: <ul style="list-style-type: none"> Resting facilities (e.g. seats including folding seats or lean on railings) should be provided within the lift cars. <i>(DM)</i> 	New proposed standard.

⁷ To contain the effect on the building bulk while allowing flexibility in the design for incorporating desirable green/amenity features and non-mandatory/ non-essential plant rooms and services, an overall cap of 10% is imposed on the total amount of GFA concessions for these features, except those features described in paragraph 5 of PNAP APP-151.

⁸ According to PNAP APP-89, the Building Authority will, upon application and on the merits of each case, allow the GFA of lift shafts provided over and above the average areas of lift shaft in domestic/composite and office buildings to be excluded from GFA calculations in order to provide better lift service in private developments.

Location	Building Features	Proposed Features	Remarks
Lift car	C7. Lift control buttons in the lift car	Recommended Best Practice: <ul style="list-style-type: none"> All lift control buttons should be back-lit. <i>(DM)</i>	<u>New</u> proposed standard.

(IV) Outdoor Common Area

Location	Building Features	Proposed Features	Remarks
Main entrance/ drop-off area	D4. Wider canopy	Promoted Feature through Incentives: <ul style="list-style-type: none"> To allow canopy projecting not more than 3.5 m⁹ be excluded from SC and GFA calculations, and not subject to 10% GFA cap. <i>(PNAP APP-19)</i>	Existing promoted feature through incentives upgraded by allowing larger canopy projecting from entrance to be excluded from SC and GFA calculations, from not more than 2m to not more than 3.5m.
/	D5. Wider covered walkway / passageway	Promoted Feature through Incentives: <ul style="list-style-type: none"> To allow width of covered walkway/ passageway not more than 3.5 m be exempted from GFA calculations and not subject to 10% GFA cap. <i>(PNAP APP-42)</i>	Existing promoted feature through incentives upgraded by allowing wider covered walkway/ passageway to be excluded from GFA calculations, from not more than 2m to not more than 3.5m.

⁹ For width more than 3.5 m, applications will be considered on individual case basis subject to the merits of the design.

**(B) Design Adaptability: Adoption of Adaptive Design to Facilitate Subsequent Modification
(Private Area inside Residential Unit)**

Mandatory Requirements: Nil

Encouraged Features

Location	Building Features	Proposed Features	Remarks
Private Flats	E1. Convertibility without structural alteration	<p>Recommended Best Practice: Take into account the ease of alteration to accommodate elderly-friendly design in flat units, namely convertible without structural alteration to accommodate the following elderly-friendly design:</p> <p>I) <u>Features that reduce possible safety risks</u></p> <ul style="list-style-type: none"> (i) Level difference from indoor living area to the balcony shall be avoided, e.g. installation of deck flooring. (ii) Handrail / grab bars shall be provided in toilet / shower area. (iii) Shower seat shall be provided. (iv) Low threshold or curbless walk-in shower. <p>II) <u>Features to cater for elderly on wheelchair</u></p> <ul style="list-style-type: none"> (v) Lower door viewer shall be provided for main entrance. (vi) The corridor within units shall have a clear width of not less than 950 mm. (vii) Large and/or two-way switch shall be provided at reachable level. (viii) Maneuvering area of not less than 1200 mm diameter shall be provided in main entrance, 	<u>New</u> proposed standard.

Location	Building Features	Proposed Features	Remarks
		kitchen, toilet and bedroom ¹⁰ . (ix) The internal door shall have a clear width of not less than 850 mm. (x) Knee space shall be provided under sink / wash basin. III) <u>Features to improve daily convenience</u> (xi) The depth of counter-top in kitchen shall not be more than 600 mm. (xii) Adequate drainage provisions shall be allowed. (DM)	

(C) Enhancing Elderly Well-being

Mandatory Requirements: Nil

Encouraged Features

I. Private Area Inside Residential Unit

Location	Building Features	Proposed Features	Remarks
Private Flats	F1. Windows	Recommended Best Practice: <ul style="list-style-type: none"> ● Larger window and lower window shall be provided. ● Sliding window shall be used¹¹. (DM)	<u>New</u> proposed standard.

¹⁰ Most of recommended items in this section are considered feasible for adoption in **public housing** developments except item (viii) (i.e. the provision of a manoeuvring area of not less than 1200mm in the kitchen and toilet) which may result in enlarging the service area (kitchen and toilet) in small public housing flats and may not be in good proportion to the remaining size of living area. For larger flat types, future convertibility to enlarge kitchen and bathroom might be feasible subject to further study in reasonable size and layout.

¹¹ For **public housing**, sliding windows would be provided as far as practicable with consideration of water tightness, wind load resistance and provision of openable windows area.

II. Common Area

Location	Building Features	Proposed Features	Remarks
Residential Recreational Facilities (RRF)	F2. Provision of elderly-friendly equipment / facilities <i>(only applicable to domestic buildings or domestic part of composite buildings)</i>	Promoted Feature through Incentives: <ul style="list-style-type: none"> ● Provision of elderly-friendly equipment / facilities in RRF as additional requirement for granting GFA concessions for RRF. <i>(PNAP APP-104)</i> 	Existing promoted feature through incentives upgraded by expanding the list of facilities to be provided in RRF to include elderly-friendly equipment / facilities in order for RRF to be eligible for GFA concession (in addition to existing permissible facilities viz. table-tennis room and music room/karaoke room).
Sky Garden	F3. Provision of elderly-friendly equipment / facilities	Promoted Feature through Incentives: <ul style="list-style-type: none"> ● Subject to the provision of elderly-friendly equipment / facilities, (e.g. elderly-friendly toilet) and elderly fitness equipment in sky garden, sky garden (up to 3-storey high) is allowed to connect with RRF (by locating on the same floor or the next consecutive floor) and still be able to enjoy GFA concession. <i>(PNAP APP-104 & JPNI)</i> 	Existing promoted feature through incentives upgraded by expanding the list of facilities to be provided in sky garden to include elderly-friendly equipment / facilities in order for sky garden connected to the RRF to be eligible for GFA concession (in addition to existing permissible facilities viz. fixed planters and furniture).
Covered Public Open Space (POS) ¹²	F4. Provision of resting facilities	Promoted Feature through Incentives: <ul style="list-style-type: none"> ● Covered POS as required under planning or lands regime may be exempted from GFA calculations and not subject to 10% GFA cap. ● Provision of resting facilities in covered POS required for GFA exemption. <i>(PNAP)</i> 	New promoted feature through incentives. (Currently, GFA exemption may be considered case by case.)
Internal Corridor / Path and Lobby / Lift Lobby, etc.	F5. Resting facilities	Promoted Feature through Incentives: <ul style="list-style-type: none"> ● Provision of resting facilities in typical lift lobbies is one of features under specific standard on “Health and well-being”. <i>(Complement BEAM Plus rating as pre-requisite for granting GFA concession, PNAP APP-151)</i> 	Same as existing promoted feature through incentives.

¹² Currently, GFA exemption would only be granted if the covered POS is required by the government in order to avoid over-provision thus increasing building bulk from town planning point of view.

Location	Building Features	Proposed Features	Remarks
		Recommended Best Practice: <ul style="list-style-type: none"> Resting places with resting facilities, such as seats (including fold-down seats) or lean-on railings shall be provided on stair landings and long corridors. <i>(DM)</i>	Same as existing recommended best practice in DM.
Outdoor Recreation Spaces	F6. Resting facilities	Recommended Best Practice: <ul style="list-style-type: none"> Resting places with resting facilities, such as seats (including fold-down seats) or lean-on railings shall be provided on outdoor recreation spaces. <i>(DM)</i>	Same as existing recommended best practice in DM.
Outdoor Space	F7. Planters for community farming	Recommended Best Practice: <ul style="list-style-type: none"> Knee spaces shall be provided under the planters for community farming. <i>(DM)</i>	New proposed standard.

(D) Facilitating Adoption of Gerontechnology
(Both Common Area and Private Area Inside Residential Unit)

Mandatory Requirements: Nil

Encouraged Feature

Location	Building Features	Proposed Feature	Remarks
/	G1. Network	Recommended Best Practice: <ul style="list-style-type: none"> Enabling works for high-speed and stable internet provision (e.g. 5G) / Global Positioning System / Radio Frequency Identification Technology to support the use of gerontechnology (e.g. smart card system for main entrance; water flow sensor; call caring services; motion sensor; artificial intelligence and robotic support; remote gas heater control; and door sensor). <i>(DM)</i>	New proposed standard.

Note:

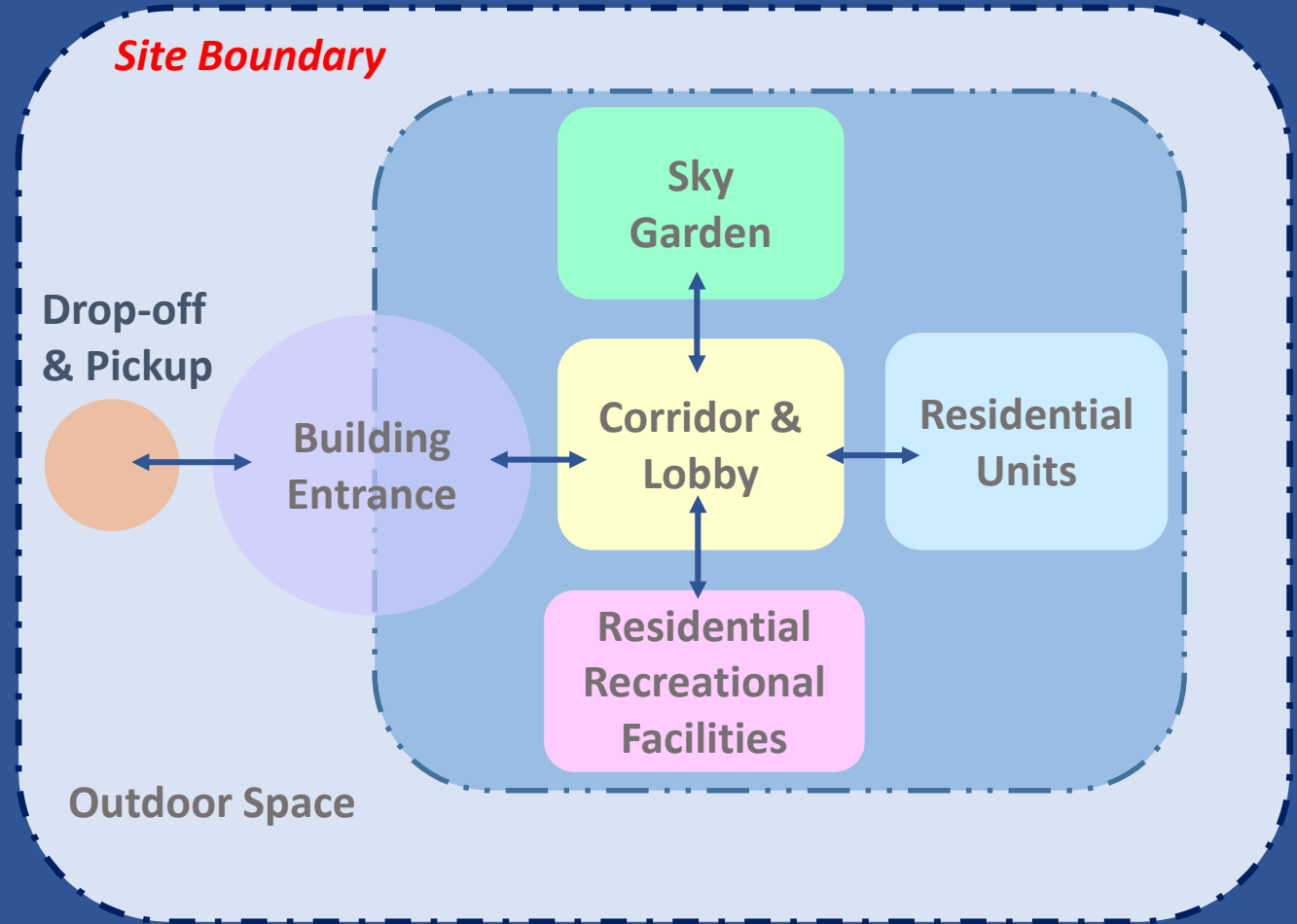
B(P)R : Building (Planning) Regulation

DM : Design Manual: Barrier Free Access

PNAP : Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers

JPN : Joint Practice Note

Mobility and Accessibility



Mandatory Features

(I) Private Area Inside Residential Unit



Feature	Proposed Feature	Remarks
A1. Wider Entrance Door	Entrance Door shall have a clear width of not less than 850 mm . Mandatory	Existing promoted feature through incentives upgraded to mandatory requirement.
A2. Door Threshold	Entrance door threshold shall not exceed 15 mm in height, have a bevelled and round edge on each side at gradient not steeper than 1:2. Mandatory	New proposed standard (there is no existing mandatory requirement / promoted feature through incentives / recommended best practice).
A3. Floor Finishes at Wet Areas including Toilet & Kitchen	Provision of slip-resistant floor surface Mandatory	Existing recommended best practice in DM upgraded to mandatory requirement.



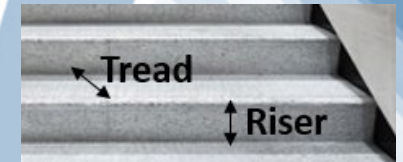
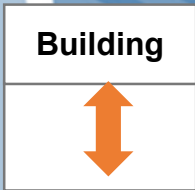
(II) Indoor Common Area (Horizontal Circulation)

Feature	Proposed Feature	Remarks
B1. Automatic Main Entrance Door	At least one of the main entrances of a residential building shall be provided with automatic door. Mandatory	Existing promoted feature through incentives upgraded to mandatory requirement.
B2. Well-lit Common Area	Min. lux level \geq 120 lux Mandatory	Existing mandatory requirement upgraded from 85 lux to 120 lux.
B3. Wider Corridor	Min. clear width \geq 1 200 mm . Mandatory	Existing mandatory requirement upgraded from 1 050 mm to 1 200 mm wide.
B4. Floor Finishes	Provision of slip-resistant floor surface. Mandatory	Existing recommended best practice in DM upgraded to mandatory requirement.
B5. Wider Door	Min. door width \geq 850 mm Mandatory	Existing mandatory requirement upgraded from 800 mm to 850 mm.
B6. Door Threshold	Door threshold shall not exceed 15 mm in height, have a bevelled and round edge on each side at gradient not steeper than 1:2. Mandatory	Existing mandatory requirement upgraded from not exceeding 20 mm to not exceeding 15 mm.

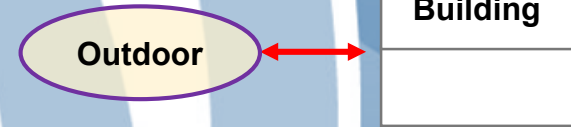


(III) Indoor Common Area (Vertical Circulation)

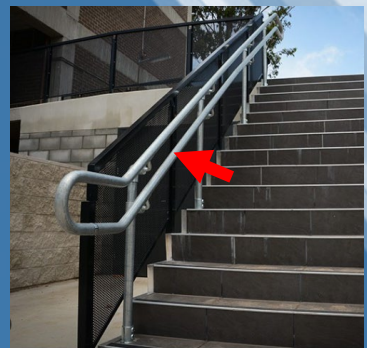
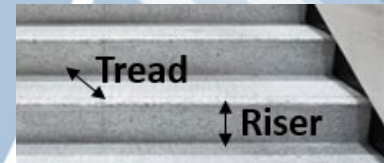
Feature	Proposed Feature	Remarks
C1. Larger Lift Car	Accessible lifts shall have minimum internal car dimension of 1.2m x 1.4m (width/depth). <div style="text-align: right; background-color: red; color: white; padding: 5px; display: inline-block;">Mandatory</div>	Existing mandatory requirement upgraded from “1.1m x 1.2m” to “1.2m x 1.4m” (width/depth).
C2. Mirror at Rear Wall of Lift Car	Mirror-like finishes surface shall be provided at rear wall of the lift car. <div style="text-align: right; background-color: red; color: white; padding: 5px; display: inline-block;">Mandatory</div>	Existing recommended best practice in DM upgraded to mandatory requirement.
C3. Lower Risers and Wider Treads for Indoor Circulation Staircases	Treads not less than 300 mm in width and risers not more than 150 mm in height. <div style="text-align: right; background-color: red; color: white; padding: 5px; display: inline-block;">Mandatory</div>	Existing mandatory requirements for treads and risers upgraded from 225 mm to 300 mm wide and from 175 mm to 150 mm high respectively.
C4. Provision of Dual-level Handrails for Indoor Circulation Staircases	<ul style="list-style-type: none"> ➤ The top of upper handrail shall be at a height of not less than 850 mm and not more than 950 mm above the floor ➤ The lower handrail shall be at a height of not less than 700 mm and not more than 800 mm above the floor and ➤ No less than 150 mm separation between the top of upper and lower handrail. <div style="text-align: right; background-color: red; color: white; padding: 5px; display: inline-block;">Mandatory</div>	New proposed standard (there is no existing mandatory requirement / promoted feature through incentives / recommended best practice).



(IV) Outdoor Common Area



Feature	Proposed Feature	Remarks
D1. Floor Finishes	Provision of slip-resistant floor surface. Mandatory	Existing recommended best practice in DM upgraded to mandatory requirement.
D2. Lower Risers and Wider Treads for Outdoor Staircases	Treads not less than 300 mm in width and risers not more than 150 mm in height Mandatory	Existing mandatory requirements for treads and risers upgraded from 280 mm to 300 mm wide and from 160 mm to 150 mm high respectively.
D3. Provision of Dual-level Handrails for Outdoor Staircases	<ul style="list-style-type: none"> ➤ The top of upper handrail shall be at a height of not less than 850 mm and not more than 950 mm above the floor ➤ The lower handrail shall be at a height of not less than 700 mm and not more than 800 mm above the floor and ➤ No less than 150 mm separation between the top of upper and lower handrail. Mandatory	New proposed standard (there is no existing mandatory requirement / promoted feature through incentives / recommended best practice).



Encouraged Features

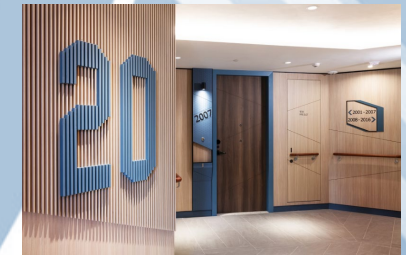
(I) Private Area Inside Residential Unit

Feature	Proposed Feature	Remarks
A4. Door of Toilet / Bathroom & Shower	Provision of sliding / folding / double swing doors Recommended	Existing recommended best practice in DM updated to include the alternatives of sliding door.




(II) Indoor Common Area (Horizontal Circulation)

Feature	Proposed Feature	Remarks
B7. Wider Corridor*	If common corridor(s) with clear width more than 1 200 mm are provided, requirement of natural ventilation for granting GFA concession will not be required . Promoted	GFA concession requirement relaxed by allowing wider corridor in place of natural ventilation.
B8. Signs for Elderly-friendly Facilities and Floor Numbering	Clear sign with bigger font size and higher colour contrast Recommended	New proposed standard.
B9. Provision of Handrail	Handrails shall be provided along corridors. Recommended	New proposed standard.

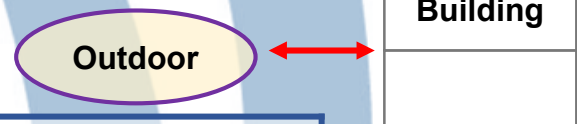


**only applicable to domestic buildings or domestic part of composite buildings, as non-domestic part of composite buildings and commercial buildings are generally able to meet the requirement.*

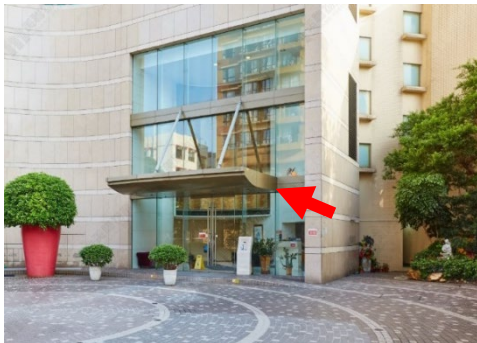
(III) Indoor Common Area (Vertical Circulation)

Feature	Proposed Feature	Remarks
<p>C5. Larger Lift Car</p> 	<ul style="list-style-type: none"> Certain percentage of relevant lift shaft area can also be exempted from SC calculations. The lift shaft area exempted from GFA calculations will not be subject to 10% GFA cap. Enlarged fireman's lift with minimum internal car dimensions of 1.5m x 1.6m for ambulance operation is one of features under specific standard on "Health and well-being". <i>(Complement BEAM Plus rating for granting GFA concession)</i> <p style="text-align: right;">Promoted</p>	<ul style="list-style-type: none"> Existing promoted feature through incentives relaxed - apart from not subjecting to the 10% GFA cap, SC exemption would also be granted. Same as existing promoted feature through incentives.
	<p>Clear depth of an accessible lift shall be not less than 1.5 m.</p> <p style="text-align: right;">Recommended</p>	<p>Same as existing recommended best practice in DM.</p>
<p>C6. Seating within Lift Car</p>	<p>Provision of resting facilities (e.g. seats including folding seats or lean on railings) within the lift cars is one of features under specific standard on "Health and well-being". <i>(Complement BEAM Plus rating for granting GFA concession)</i></p> <p style="text-align: right;">Promoted</p>	<p>Same as existing promoted feature through incentives.</p>
	<p>Resting facilities (e.g. seats including folding seats or lean on railings) should be provided within the lift cars</p> <p style="text-align: right;">Recommended</p>	<p>New proposed standard.</p>
<p>C7. Lift Control Button</p>	<p>All lift control buttons should be back-lit.</p> <p style="text-align: right;">Recommended</p>	<p>New proposed standard.</p>

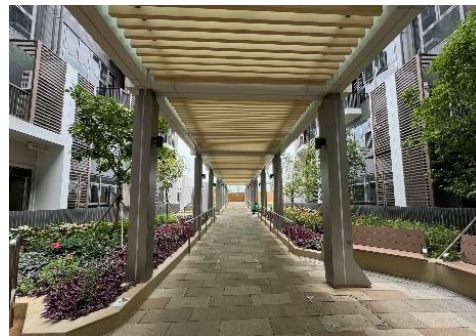
(IV) Outdoor Common Area



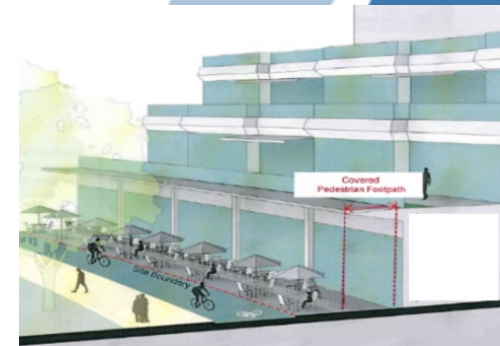
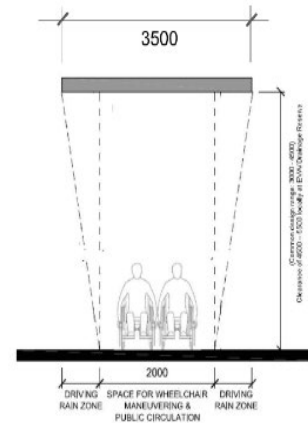
Feature	Proposed Feature	Remarks
D4. Wider Canopy at Main Entrance	To allow canopy projecting not more than 3.5 m be excluded from SC and GFA calculations , and not subject to 10% GFA cap. Promoted	Existing promoted feature through incentives upgraded by allowing larger canopy projecting from entrance to be excluded from SC and GFA calculations, from not more than 2m to not more than 3.5m.
D5. Wider Covered Walkway / Passageway	To allow width of covered walkway/passageway not more than 3.5 m be exempted from GFA calculations and not subject to 10% GFA cap. Promoted	Existing promoted feature through incentives upgraded by allowing wider covered walkway/passageway to be excluded from GFA calculations, from not more than 2m to not more than 3.5m.



Canopy



Covered walkway



Covered passageway

Design Adaptability for Private Area Inside Residential Unit



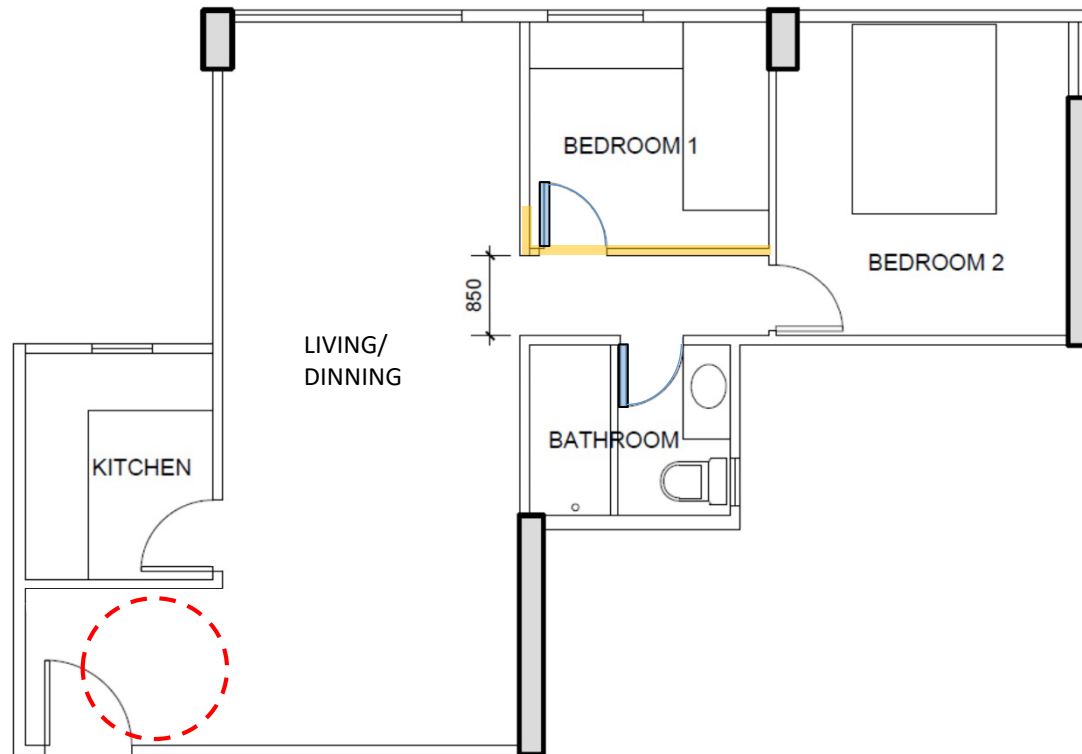
E1. Convertibility without structural alteration

Flat units should take into account the ease of alteration for accommodating elderly-friendly building design, namely convertible without structural alteration.

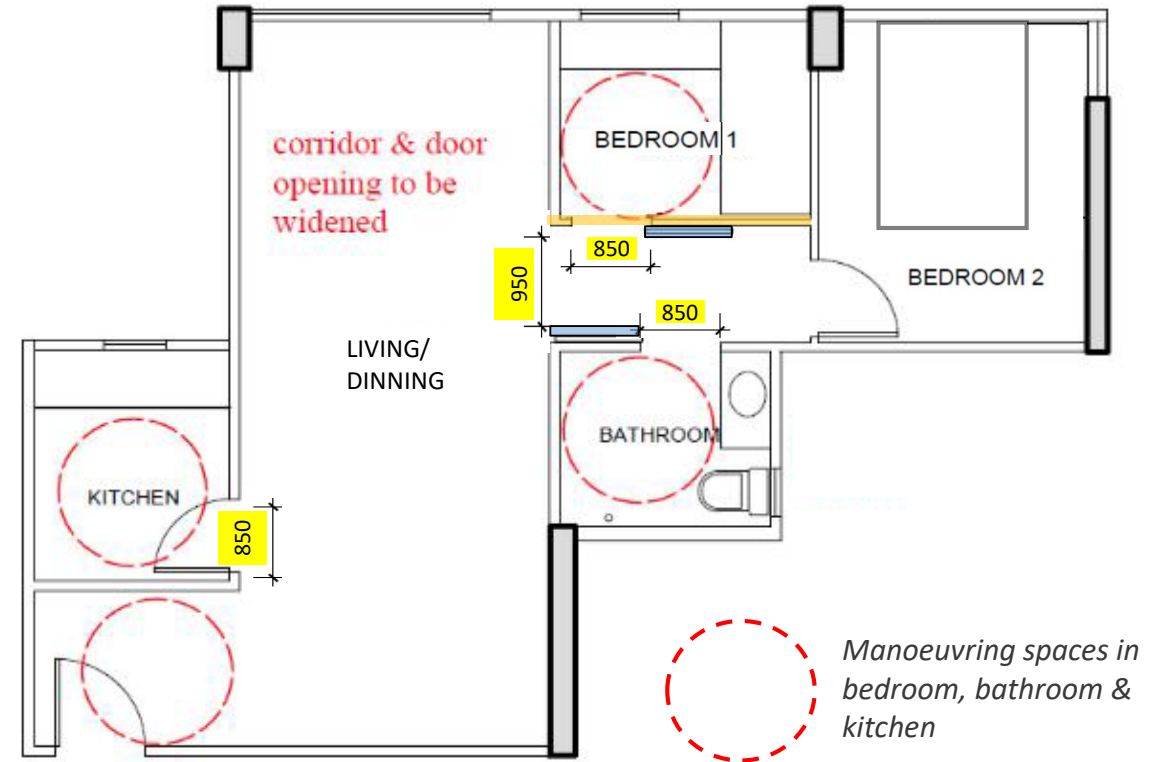
Recommended

An example of layout design* for illustration purpose

Before Conversion



After Conversion



* When adopting MiC design, consideration of future conversion will be taken into account at early design stage

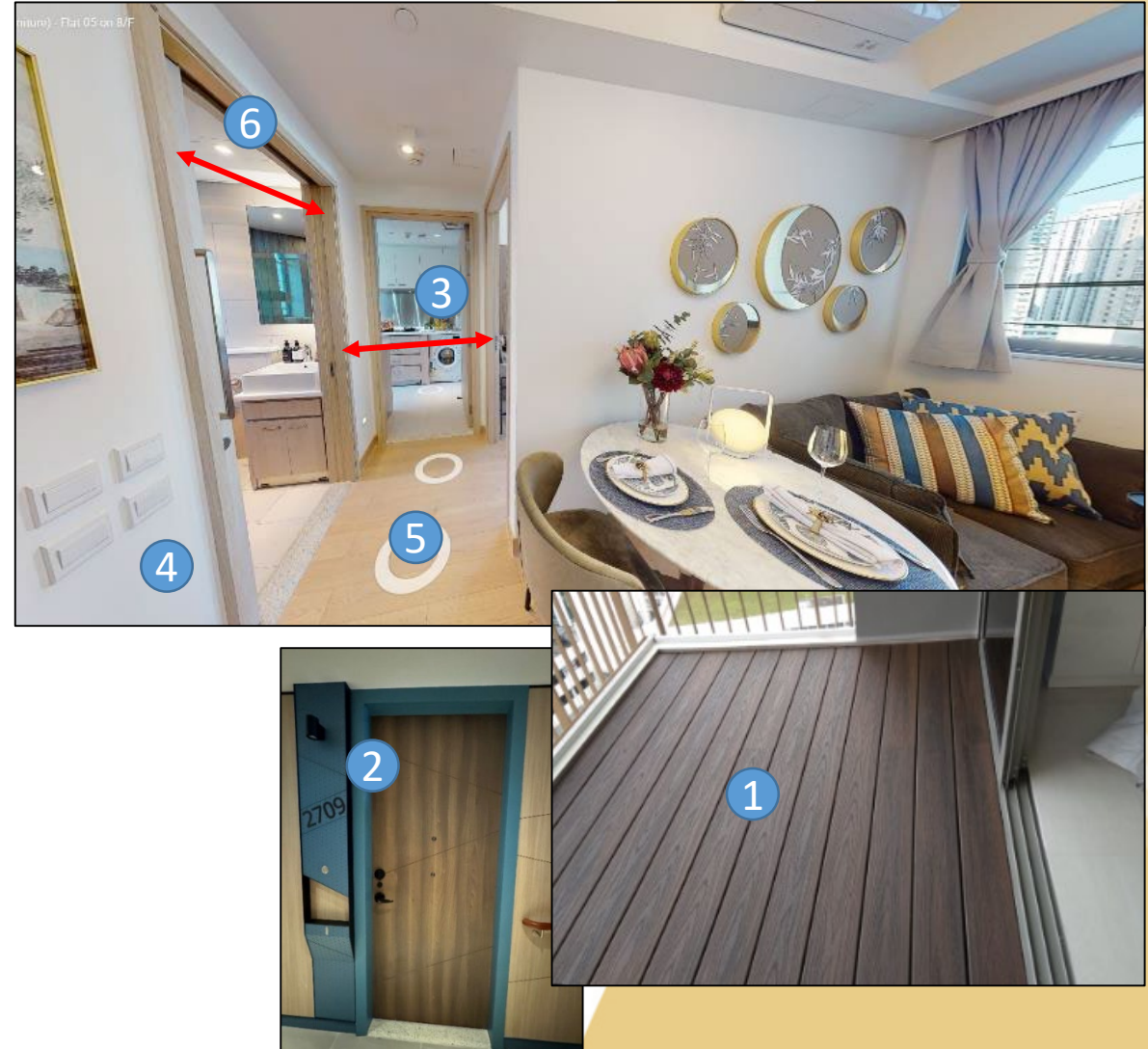
Features that reduce possible safety risks

1. Avoid level difference from indoor living area to the balcony, e.g. use deck flooring

Features to cater for elderly on wheelchair

2. Lower door viewer provided for main entrance
3. Wider Corridor within units (950 mm)
4. Large and two-way switch at reachable level
5. Manoeuvring area in main entrance, kitchen, toilet and bedroom (1200 mm dia.)
6. Min. width of internal doors (850 mm)

Recommended



Features that reduce possible safety risks

- 7. Handrail/ grab bars in toilet/ shower area
- 8. Shower Seat
- 9. Low threshold or curbless walk-in shower

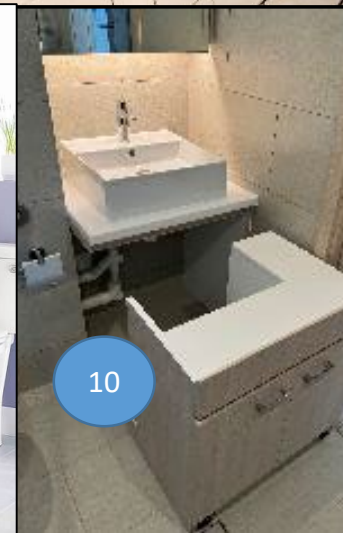
Features to cater for elderly on wheelchair

- 10. Knee space under sink/ wash basin

Features to improve daily convenience

- 11. Counter-top in kitchen (max. 600 mm depth)
- 12. Allow drainage provisions to cater for adaptive design

Recommended



Well-being



Encouraged Features

(I) Private Area inside Residential Unit

Feature	Proposed Feature	Remarks
F.1 Windows	<ul style="list-style-type: none">➤ Larger window and lower window shall be provided; and➤ Sliding window shall be used <p style="text-align: right;">Recommended</p>	New proposed standard.



(II) Common Area: Residential Recreational Facilities (RRF)

Feature	Proposed Feature	Remarks
F2. Provision of Elderly-friendly Equipment / Facilities*	Provision of elderly-friendly equipment / facilities in RRF as additional requirement for granting GFA concessions for RRF.	Existing promoted feature through incentives upgraded by expanding the list of facilities to be provided in RRF to include elderly-friendly equipment / facilities in order for RRF to be eligible for GFA concession (in addition to existing permissible facilities viz. table-tennis room and music room/karaoke room).

Promoted



**only applicable to domestic buildings or domestic part of composite buildings*

(II) Common Area: Sky Garden

Feature

**F3.
Provision of Elderly-
friendly Equipment /
Facilities**

Proposed Feature

Subject to the provision of **elderly-friendly equipment / facilities (e.g. elderly-friendly toilet) and elderly fitness equipment** in sky garden, sky garden (up to 3-storey high) is **allowed to connect with RRF** (by locating on the same floor or the next consecutive floor) and still be able to **enjoy GFA concession**.

Promoted

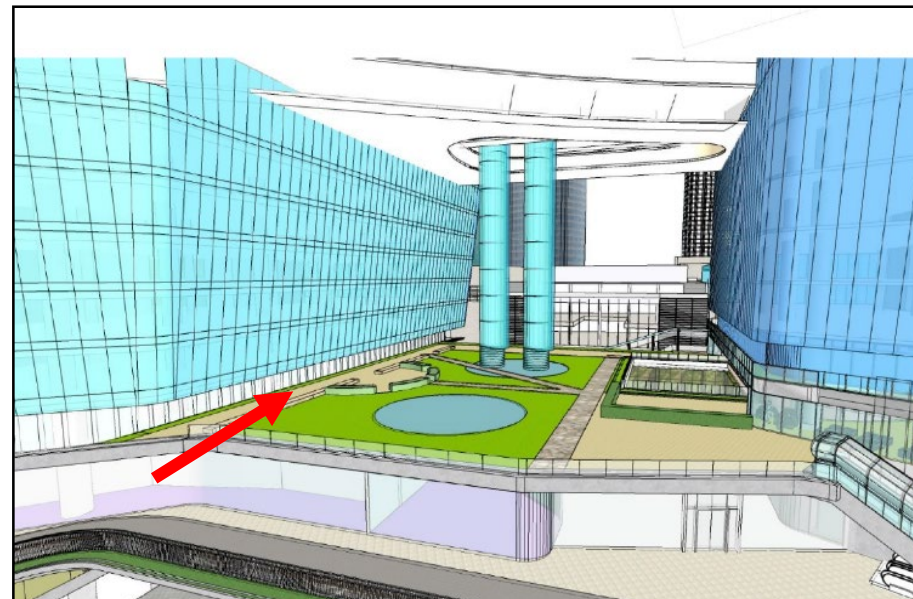
Remarks

Existing promoted feature through incentives **upgraded** by expanding the list of facilities to be provided in sky garden to include elderly-friendly equipment / facilities in order for sky garden connected to the RRF to be eligible for GFA concession (in addition to existing permissible facilities viz. fixed planters and furniture).



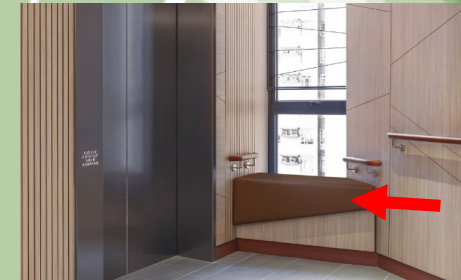
(II) Common Area: Covered Public Open Space (POS)

Feature	Proposed Feature	Remarks
F4. Provision of Resting Facilities	<ul style="list-style-type: none">➤ Covered POS as required under planning or lands regime may be exempted from GFA calculations and not subject to 10% GFA cap;➤ Provision of resting facilities in covered POS required for GFA exemption. <p style="text-align: right;">Promoted</p>	New promoted feature through incentives. (Currently, GFA exemption may be considered case by case.)



(II) Common Area

Feature	Proposed Feature	Remarks
F5. Provision of Resting Facilities at Internal Corridor and Lobby, etc	Provision of resting facilities in typical lift lobbies is one of features under specific standard on “Health and well-being”. <i>(Complement BEAM Plus rating for granting GFA concession)</i> <div style="text-align: right; background-color: #4CAF50; color: white; padding: 5px; border-radius: 10px; display: inline-block;">Promoted</div>	Same as existing promoted feature through incentives.
	Provision of resting facilities, such as seats (including fold-down seats) or lean-on railings on stair landings and long corridors . <div style="text-align: right; background-color: #FFC107; color: white; padding: 5px; border-radius: 10px; display: inline-block;">Recommended</div>	Same as existing recommended best practice in DM.
F6. Provision of Resting Facilities at Outdoor Space	Resting places with resting facilities, such as seats (including fold-down seats) or lean-on railings shall be provided on external recreation spaces . <div style="text-align: right; background-color: #FFC107; color: white; padding: 5px; border-radius: 10px; display: inline-block;">Recommended</div>	Same as existing recommended best practice in DM.
F7. Planters for Community Farming	Knee spaces shall be provided under the planters for community farming. <div style="text-align: right; background-color: #FFC107; color: white; padding: 5px; border-radius: 10px; display: inline-block;">Recommended</div>	New proposed standard.



Gerontechnology



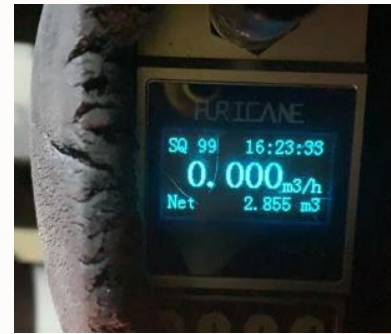
Common Area and Private Area Inside Residential Unit

Feature	Proposed Feature	Remarks
G1. Network	Enabling works for high-speed and stable internet provision (e.g. 5G) / Global Positioning System / Radio Frequency Identification Technology to support the use of gerontechnology.	New proposed standard.

Recommended



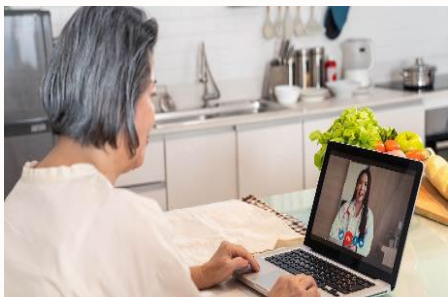
Smart card system for main entrance, mail box, flat entrance as well as GPS



Water flow sensor



Door sensor



Call caring services



Motion sensor



AI and robotic support



Remote gas heater control