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19 October 2018

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Dear Sir/Madam

PUBLIC VIEWS SOUGHT ON REVISED CODE ON ACCESSIBILITY

The Accessibility Code Review Committee, chaired by BCA, was formed in April 2017 to review the *Code on Accessibility in the Built Environment 2013*. The committee, comprising representatives from relevant government agencies, the building industry and voluntary welfare organizations (see Annex A) aims to update the current Code to meet the needs of a wider spectrum of people. The key objectives of the review are:

- a. To update the current Code in response to feedback and to meet the needs of the future; and
- b. To enhance the provisions for the elderly and persons with disabilities to support an inclusive and friendlier built environment.

2 The proposed key changes to the current Code on Accessibility 2013 are listed in Annex B.

3 The draft of the revised Code on Accessibility will be opened for public feedback with effect from **19 October 2018**. The Code Review Committee welcomes any feedback that you or your members may have on the draft Code. Your input would help the Committee to refine its recommendations before the revised Code is finalized for adoption.

4 The draft can be downloaded from BCA website www.bca.gov.sg. You may submit your feedback to bca_ud@bca.gov.sg or faxed to 63344031. All



feedback should reach the Committee on or before **16 November 2018** and attention to: The Chairman, Accessibility Code Review Committee.

Yours faithfully



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MEMBERS OF THE CODE REVIEW COMMITTEE

1. Government Agencies

- a) Building and Construction Authority (BCA) – Chair
- b) Housing and Development Board (HDB)
- c) Land Transport Authority (LTA)
- d) National Parks Board (NParks)
- e) Urban Redevelopment Authority (URA)
- f) SG Enable

2. Institutions

- a) National University of Singapore (NUS)
- b) Singapore University of Technology and Design (SUTD)
- c) Singapore Association for Occupational Therapists (SAOT)

3. Voluntary Welfare Organisations

- a) Disabled People's Association (DPA)
- b) Handicaps Welfare Association (HWA)
- c) Singapore Association of the Visually Handicapped (SAVH)
- d) SPD

4. Industry Associations

- a) Real Estate Developers Association of Singapore (REDAS)
- b) Singapore Institute of Architects (SIA)



Annex B

Proposed Key Changes to Code on Accessibility in the Built Environment 2013

NO	PROPOSED NEW/ REVISION IN DRAFT CODE 2019	PROVISION IN CODE 2013	REMARKS
1.0	SANITARY PROVISION		
1.1	<p><u>(New Clause 5.8)</u> Mandatory provision of Changing Places at selected building types such as:</p> <ul style="list-style-type: none"> a) Hospitals, health-care centres, polyclinics; b) Major transport terminals/ interchanges, e.g. airport, bus & MRT interchanges/ railway stations, cruise centres; c) Sport complexes; d) Theme parks, purpose-built family amusement centres, community clubs and country clubs; and e) Shopping complexes of size 20,000 sqm and above in gross floor area. <p>At least one Changing Places of minimum size (2.6m X 2.3m) shall be provided at appropriate location.</p>	No provision	<p>This is a new requirement to support adults with disabilities and elderly who may need the help of caregivers to clean-up and change diapers.</p> <p><i>Note 1: Changing Places is a combined toilet & changing room for use by adults with disabilities or elderly who require the help of caregivers.</i></p>
1.2	<p><u>(New Clause 5.1.3)</u> At least one larger accessible individual washroom shall be provided at every floor where clusters of toilets are provided for the selected building types such as:</p> <ul style="list-style-type: none"> a) Shopping complexes, multi-purpose complexes; b) Sport complexes, places of public resort, public swimming pools; c) Markets, hawker or food centres; d) Transport stations, interchanges, passenger terminals; e) Hospitals, health-care centres, polyclinics; and f) Universities or institutions of learning, colleges. 	<p><u>(Clauses 5.1.1 and 5.1.2)</u> At every level of a non-residential building where toilets are provided, at least one accessible individual washroom of minimum size 1.75m wide X 1.75m deep shall be provided.</p> <p>Where two or more clusters of toilets are provided at the same level but at different locations, the corresponding number of accessible individual washrooms shall be provided. Each accessible individual washroom may be replaced with one accessible water closet</p>	<p>This is a new requirement to address the growing trend of the elderly and persons with disabilities using motorised wheelchair and scooters. The current accessible toilet size has to be increased as the current provision was based on standard manual wheelchair.</p>



	The minimum size of such toilet shall be 1.8m wide X 2.1m deep.	compartment (minimum size 1.50m wide X 1.75m deep) in the male and female toilet clusters provided that there is at least one accessible individual washroom on the same level.	
2.0	FAMILY-FRIENDLY FACILITIES		
2.1	<p><u>(New Clause 6.9.1.3)</u> At least one lactation room for nursing women at appropriate location shall be provided to the following buildings:</p> <ul style="list-style-type: none"> a) Hospitals, health-care centres and polyclinics; b) Offices and Business Parks where GFA $\geq 10,000\text{m}^2$; and c) Mixed development where GFA for non-residential component $\geq 10,000\text{m}^2$. Each non-residential component shall be provided with at least one lactation room. 	<p><u>(Clause 6.9.1.1)</u> Provision of family-friendly facilities for nursing women, young children and their caregivers shall be provided at the following building types that are frequented by general public:</p> <ul style="list-style-type: none"> a) Transport stations, interchanges and passenger terminals; b) Sport complexes and public swimming pools; c) Community Club, theme parks and purpose-built family amusement centres; d) Large scale shopping and multi-purpose complexes of size more than $10,000\text{m}^2$ in GFA. 	<p>Enhanced requirement to require more building types to be provided with lactation room.</p> <p>For example, lactation room to be provided at outpatient areas in hospitals and polyclinics to cater to parents with young children. While lactation room to be provided in office buildings of certain size for working mothers who may need to express milk.</p>
3.0	CARPARK		
3.1	<p><u>(Revised Clause 2.1.1 – Table 1)</u> For vehicle parking buildings, car parking areas are to be made accessible. This includes interconnectivity of the car parking areas to lift lobbies and entrances as well as to adjacent buildings.</p>	<p><u>(Clause 2.1.1 – Table 1)</u> For vehicle parking buildings, at least 50% of car park decks are to be made accessible</p>	<p>Enhanced requirement to ensure that all car parking areas and interconnection to adjacent lobbies/buildings are accessible.</p>

4.0 ACCESSIBLE PARKING LOTS FOR HOSPITALS																		
4.1	<p><u>(New Clause 3.5.1.2 – Table 2A)</u> The number of accessible parking lots for hospitals shall be increased and provided as follows:</p> <p style="text-align: center;">Table 2A <i>Accessible Parking Lots</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Number of vehicle parking lots</th> <th>Number of accessible lots</th> </tr> </thead> <tbody> <tr> <td>First 50 lots (1-50)</td> <td>2</td> </tr> <tr> <td>Next 50 lots (51-100)</td> <td>2</td> </tr> <tr> <td>Every subsequent 200 lots or any part thereof</td> <td>1</td> </tr> </tbody> </table>	Number of vehicle parking lots	Number of accessible lots	First 50 lots (1-50)	2	Next 50 lots (51-100)	2	Every subsequent 200 lots or any part thereof	1	<p><u>(Clause 3.5.1.1 – Table 2)</u> The current provision is as follows:</p> <p style="text-align: center;">Table 2 <i>Accessible Parking Lots</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Number of vehicle parking lots</th> <th>Number of accessible lots</th> </tr> </thead> <tbody> <tr> <td>First 50 lots</td> <td>1</td> </tr> <tr> <td>Next 50 lots</td> <td>1</td> </tr> <tr> <td>Every subsequent 200 lots or part thereof</td> <td>1</td> </tr> </tbody> </table> <p>The ratio of accessible parking lots is enhanced for hospitals as the probability of persons in wheelchairs visiting such places is higher.</p>	Number of vehicle parking lots	Number of accessible lots	First 50 lots	1	Next 50 lots	1	Every subsequent 200 lots or part thereof	1
Number of vehicle parking lots	Number of accessible lots																	
First 50 lots (1-50)	2																	
Next 50 lots (51-100)	2																	
Every subsequent 200 lots or any part thereof	1																	
Number of vehicle parking lots	Number of accessible lots																	
First 50 lots	1																	
Next 50 lots	1																	
Every subsequent 200 lots or part thereof	1																	
5.0 RAMP																		
5.1	<p><u>(Revised Clause 4.6.5.2 – Table 5)</u> Ramp with gradient of 1:12 shall have a length of horizontal run of not more than 6m instead of 9m.</p>	<p><u>(Clause 4.6.5.2 – Table 5)</u> The current 1:12 ramp shall have a length of horizontal run of not more than 9m</p> <p>Received feedback that it was difficult for wheelchair users to wheel up a 1:12 ramp with a horizontal run of 9m.</p> <p>The revision is to have a 1:12 ramp with a shorter horizontal run of 6m to enable wheelchair users to wheel up the ramp with less difficulty.</p>																
6.0 RESTING AREAS																		
6.1	<p><u>(Revised Clause 4.2.5.1)</u> Resting area with seats shall be provided along long paths of travel. The maximum intervals for the resting areas:</p> <ul style="list-style-type: none"> (a) shall be 50 m around and within the buildings; (b) should be 50 m for footpaths and park connectors; and (c) should be 30 m in parks and open spaces. 	<p><u>(Clause 4.2.5.1)</u> Resting areas with seats shall be provided along long paths of travel. Long paths of travel should be avoided and resting areas shall be provided at frequent intervals not exceeding 50 m.</p> <p>Relaxed requirement for footpaths, park connectors, parks and open spaces.</p>																



6.2	<p><u>(Note 2 under Clause 4.2.5.1)</u></p> <p>(1) Resting areas should be recessed from the long paths of travel which can also act as a passing space for two wheelchair users to pass each other as illustrated in Figure 21.</p> <p>(2) Resting areas do not apply to the passageway linking transport stations within the interchange and passageway of underpass/linkways from entrance to concourse of transport stations.</p>	<p><u>(Note under Clause 4.2.5.1)</u></p> <p>Resting areas should be recessed from the long paths of travel which can also act as a passing space for two wheelchair users to pass each other as illustrated in Figure 20.</p>	For safety and security reasons.
7.0 DETECTABLE WARNING SURFACE			
7.1	<p><u>(Additional Notes 4 and 5 under Clause 4.11.3 to specify that detectable warning surface shall not apply to staircases that lead to areas of certain building types; and new setback dimension for staircase storey shelter respectively)</u></p> <p>(1) Strongly patterned carpets shall not be used for stairs as they obscure the definition of the tread edges and can cause danger to users.</p> <p>(2) Bright stainless steel or polished brass should not be used for nosing strips as glare reflection can cause disorientation to persons with visual impairments.</p> <p>(3) The detectable warning surface is to alert persons with visual impairments that they are approaching steps and to be extra careful.</p> <p>(4) Clause 4.11.3 shall not apply to stairs that lead to areas specified under clauses 2.3.11, 2.5.1 and workers' dormitory.</p> <p>(5) If it is due to blast door of staircase storey shelter, the detectable warning surface can</p>	<p><u>(Notes under Clause 4.11.3)</u></p> <p>(1) Strongly patterned carpets shall not be used for stairs as they obscure the definition of the tread edges and can cause danger to users.</p> <p>(2) Bright stainless steel or polished brass should not be used for nosing strips as glare reflection can cause disorientation to persons with visual impairments.</p> <p>(3) The detectable warning surface is to alert persons with visual impairments that they are approaching steps and to be extra careful.</p>	<p>Additional Note 4: To ensure clarity for compliance as persons with vision impairment are unlikely to access these areas.</p> <p>Additional Note 5: To allow setback flexibility due to design of staircase storey shelter.</p>



	be set back more than 300mm away from the step.		
8.0	HEARING ENHANCEMENT SYSTEM		
8.1	<u>[Revised Clause 6.8.1(a)]</u> A hearing enhancement system shall be provided in buildings with halls and auditoriums used for conferences , lectures, performances or films.	<u>[Clause 6.8.1(a)]</u> A hearing enhancement system shall be provided in buildings with function rooms, halls and auditoriums used for meetings, lectures, performances or films.	To ensure clarity for compliance.
8.2	<u>(Revised Note 2 under Clause 6.8.1)</u> Hearing enhancement systems that operate with induction loop, infrared and radio frequency are commonly used to provide enhanced level of sound. Other systems that provide similar performance outcome can also be considered.	<u>(Note 2 under Clause 6.8.1)</u> Hearing enhancement systems that operate with induction loop, infrared and radio frequency are commonly used to provide enhanced level of sound.	To allow more options of hearing enhancement systems.
8.3	<u>(Additional Note 4 under Clause 6.8.1)</u> (1) A hearing enhancement system enables sound signals to be transmitted to a hearing impaired person without interference of background noise or excessive reverberation. (2) Hearing enhancement systems that operate with induction loop, infrared and radio frequency are commonly used to provide enhanced level of sound. Other systems that provide similar performance outcome can also be considered. (3) Expert advice should be sought when selecting a hearing enhancement system appropriate for the situation and purpose. (4) The area of coverage for loop system is recommended to be not less than 75% of the total area.	<u>(Notes under Clause 6.8.1)</u> (1) A hearing enhancement system enables sound signals to be transmitted to a hearing impaired person without interference of background noise or excessive reverberation. (2) Hearing enhancement systems that operate with induction loop, infrared and radio frequency are commonly used to provide enhanced level of sound. (3) Expert advice should be sought when selecting a hearing enhancement system appropriate for the situation and purpose.	Recommended enhancement for halls and auditoriums.



9.0 ACCESSIBLE LIFT			
9.1	<p><u>(New Clause 4.9.2.2)</u> Non-breakable mirror or mirror like finish surface shall be provided at the rear of lift car interior to allow visual feedback for wheelchair users when reversing backwards into the lift lobby. The bottom edge of the mirror shall be at the maximum height of 1000 mm from finished floor level.</p>	<p><u>(Note under Clause 4.9.2.1)</u> It is a recommendation to provide non-breakable mirrors in the lift interior to allow visual feedback for wheelchair users when reversing backwards into the lift lobby.</p>	<p>To convert a current recommendation to mandatory requirement. This would allow visual feedback for wheelchair users when reversing backwards into the lift lobby.</p>
9.2	<p><u>[New Clause 4.9.5.1(c)]</u> The lift car control buttons located inside the lift: (a) shall be placed at a height of between 900mm and 1200mm from the floor level; (b) may be placed vertically or horizontally or both vertically and horizontally; and (c) at least one shall be placed to the side of lift car.</p>	<p><u>(Clause 4.9.5.1)</u> The lift car control buttons located inside the lift: (a) shall be placed at a height of between 900mm and 1200mm from the floor level; and (b) may be placed vertically or horizontally or both vertically and horizontally</p>	<p>The current Code does not specify explicitly where the lift control buttons are placed and this is left to the suppliers and owners to locate them either at the front or side.</p> <p>However, wheelchair users' feedback on challenges faced in turning their wheelchairs around to reach the lift control buttons if these were placed at the front. This is more so when the lift is crowded. Hence, proposed to indicate explicitly that the lift control buttons are to be located to the side of lift car to facilitate access.</p>
9.3	<p><u>(Revised Clause 4.8.2.5)</u> Lift landing call and car control buttons shall not be touch-sensitive but shall require a light positive pressure to activate them. These buttons shall have colour-contrast against the background of either the lift control panel or wall finish.</p>	<p><u>(Clause 4.8.2.5)</u> Lift landing call and car control buttons shall not be touch-sensitive but shall require a light positive pressure to activate them.</p>	<p>This is to allow elderly and low vision users to differentiate the lift buttons from the background when calling for a lift at landing and/ or</p>

			when entered into the lift.
10.0	RESIDENTIAL UNITS		
10.1	<p><u>(Revised Clause 7.2.1)</u> The doorway of the entrance shall be 850 mm minimum for a single leaf door. If the doorway has two independently operated door leaves, at least one active leaf shall be 850 mm minimum.</p>	<p><u>(Clause 7.2.1)</u> The doorway of the entrance shall be 800 mm minimum for a single leaf door. If the doorway has two independently operated door leaves, at least one active leaf shall be 800 mm minimum.</p>	<p>The current Code specifies the minimum width of door opening at the main entrance of residential unit as 800 mm. However, this entrance is also an exit and has to meet SCDF's minimum door width of 850 mm.</p> <p>Proposed to align the minimum width for consistency with SCDF's requirement.</p>



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