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1 Dec 2021

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Dear Sir/Madam

**CHANGES TO TEMPORARY OCCUPATION PERMIT (TOP) APPLICATION PROCESS FOR SIMPLE COMMUTER FACILITY INFRASTRUCTURES DEVELOPED BY LTA**

- **SUBMISSION OF INSPECTION REPORT/CHECKLIST IN LIEU OF JOINT INSPECTION AND CHANGES TO TECHNICAL AGENCIES CLEARANCES REQUIRED DURING TOP APPLICATION FOR STANDALONE BUS SHELTERS AND LIFTS AT PEDESTRIAN OVERHEAD BRIDGES DEVELOPED BY LTA.**

**Objective and Current Procedure**

1 This circular is to inform the industry of the changes related to the Temporary Occupation Permit (TOP) application requirements for standalone bus shelters and lifts to pedestrian overhead bridges **developed by LTA**, including new erection, reconstruction and addition and alteration works.

2 Currently, before the application for TOP through TOP Portal may be considered, the Qualified Person (QP) may be required to apply for a joint site inspection with BCA for the completed building works. The issuance of TOP will only be considered after successful site inspection and the submission of all required documents and applicable clearances from the other relevant technical authorities.

**New Procedure**

3 As part of our continuous efforts to streamline the TOP application processes for standalone bus shelters and lifts at pedestrian overhead bridges developed by LTA, the QP will no longer need to book a TOP inspection<sup>1</sup> via TOP Portal. When the project is ready for application of TOP, the QP shall submit the TOP application via the e-CORENET directly with attachment of his/her inspection report/checklist (see attachment in Annex A) as part of the supporting documents for the application of TOP, instead of via the TOP Portal currently.

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<sup>1</sup> TOP inspection may be arranged if the attached photos in the supporting documents for TOP application are inadequate or unsatisfactory in meeting the requirements.

4 For existing projects, if a TOP inspection date has been scheduled via the TOP Portal before the date of this circular, the QP could either submit a copy of the inspection checklist to the TOP Portal; or cancel the inspection in the TOP Portal and submit the TOP application via e-CORENET with the attachment of the QP inspection report / checklist.

5 The supporting documents to be submitted by QP for TOP application has also been revised (see attachment in Annex B) to reduce the submission touch points with technical agencies.

6 The above changes will start with immediate effect and are applicable to both existing and new projects.

#### **For Clarification**

7 We would appreciate if you could convey the contents of this circular to your members. If you need clarifications, please submit your enquiry through BCA's Online Feedback Form at <https://www.bca.gov.sg/feedbackform/> or call us at 1800 342 5222.

8 Thank You.

Yours faithfully



PUNITHAN SHANMUGAM  
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## Annex A

### **SITE INSPECTION REPORT/CHECKLIST FOR NEW ERECTION/RECONSTRUCTION/A&A OF STANDALONE BUS SHELTERS AND LIFTS TO PEDESTRIAN OVERHEAD BRIDGES DEVELOPED BY LTA**

#### Instructions

- 1 The QP(Design) shall submit this inspection report, with item (L) – LPS completed by the Professional Engineer (Electrical) for the lightning protection system.
- 2 The QP(Design) must compile the photos/measurements for all the items shown from (a) to (i) as a PDF attachment to the separate file to this checklist. QP is required to annotate the locations of photos on site/floor plan clearly.

1.	Project Reference No.	
2.	Project Title	
3.	Date of submission of first plan (BP/ST) to BCA	
4.	Photos/ measurements showing completed works are in accordance with the approved BP plans	<ol style="list-style-type: none"><li>a. External works</li><li>b. Building elevations &amp; envelop</li><li>c. LPS provisions (air-terminal system, down conductor system, earth system, equipotential bonding)</li><li>d. General layout of all floors with site measurements of ceiling height (typical &amp; worst-case scenario for each room/space)</li><li>e. Staircase (1<sup>st</sup>/one intermediate/ last landing for each stairs) with site measurements (tread &amp; riser, clear width, handrail)<ol style="list-style-type: none"><li>i. tread &amp; riser - measurement at the centre of every step</li></ol></li></ol>

			<ul style="list-style-type: none"> <li>ii. clear width (typical &amp; worst-case scenario for every flight)</li> <li>iii. handrail (height, opening)</li> <li>f. Lift at all floors at 1<sup>st</sup> and last landing <ul style="list-style-type: none"> <li>i. Safety feature for vertical platform lifts (hold-to-run, edge protection)</li> </ul> </li> <li>g. Safety barriers on all floors (close-up view) with site measurements (height, opening) (typical &amp; worst-case scenario/locations) <ul style="list-style-type: none"> <li>i. Glass material label for laminated glass (one for each type)</li> </ul> </li> </ul>
5.	Have all waivers been obtained for non-compliances and updated in the record plan accordingly?	Y / N	If 'N', please provide details of the non-compliance(s) that has/have not been updated.
6.	Is the building occupied?	Y / N	If 'Y', please provide details of the occupant(s) and state the reasons for the occupation without TOP
7.	All TOP/CSC clearances have been obtained from other technical agencies?	Y / N	If 'N', please indicate what are the outstanding clearance(s).



Status of compliance - Y: comply N: does not comply NA: not applicable						
	Clauses in Approved Document		Status of compliance (Y/N/NA)	Location / measurement of non-compliance	Waiver obtained for non-compliance?	Remark (if any)
<b>C</b>	<b>Headroom and Ceiling Height</b>					
	3.2.1	Headroom is <b>2m or more</b> for every room/ access route/ circulation space				
	3.3.1	Ceiling height is <b>2.4m or more</b> for rooms and spaces				
<b>E</b>	<b>Staircases</b>					
	3.2.1	No projection, other than handrails, is within a height of <b>2.0m</b> from the landing or pitch line.				
	3.3.1	The clearance of the width is 900mm or more.				
	3.4.1	The height of a riser does not exceed <b>175mm</b>				
	3.4.2	The minimum width of a tread is <b>225mm</b> in a residential unit				

3.4.3	The width of the tread of a tapered step shall be taken as that when measured at distance of <b>500mm</b> from the narrower end.				
3.4.4	The risers and treads are of uniform height and size.				
3.5.1	A landing is provided at every floor level and door opening.				
3.5.2	Number of risers in a flight do not exceed <b>18</b> .				
3.5.3	The clear width of landing is <b>900mm</b> or more.				
3.5.4	A landing shall not have any step or drop.				
3.5.5	One winder in every 90° turn is provided in the staircase of dwelling unit				
3.6.1	Handrail is provided at the staircase				
3.6.2	The height of the handrail is between <b>750mm and 1000mm</b> above the pitch line.				
3.6.3	Handrail (a) has a circular section of 32mm to 50mm in diameter or an equivalent gripping surface; and				

		(b) has a clear space between the handrail and wall surface of 40mm (smooth surface)/ 60mm (rough surface)				
	3.6.4	A recess containing a handrail is extended <b>450mm or more</b> above the top of the handrail				
<b>G Ventilation</b>						
	3.1(b)	Mechanical Ventilation/ air-conditioning system complies with SS553. Details of fresh-air and exhaust outlets.				
	3.2.1	Natural ventilation is provided by means of openable windows with an aggregate area of not less than  (a) 5% of the floor area of the room or space; and (b) 15% cross ventilation is provided to aboveground car park				
<b>H Safety From Falling</b>						
	3.2.1	The height of a barrier is not less than:				

	(a) 1000mm at all locations except for (b); (b) 900mm at the lower edge of the window and gallery or balcony with fixed seating in areas such as theatres, cinemas and assembling halls.				
3.3.1	The barrier is designed to withstand a horizontal loading (BSEN1991-Part 1-1)				
3.4.1	The lowest 75mm of the barrier at the external wall is built solid.				
3.4.2	The lowest 75mm of the bay window is not openable.				
3.4.3	The gap is not large enough to permit the passage of a sphere of a diameter of 100mm for non-industrial buildings / 500mm for maintenance areas.				
3.4.4	The triangular opening around a tread and riser and the bottom edge of the barrier is 150mm or less.				
3.4A.1	The barrier has a height of at least – (a) that specified in paragraph H.3.2.1; or				

		(b) 850mm measured from the last climbable toehold, whichever is higher.				
	3.5.1	Laminated glass is used for glass forming part or whole of the barrier				
	3.5.2	All glass used comply with SS341				
<b>K Lifts</b>						
	Safety features are provided for <b>vertical platform lifts</b> :					
	<ul style="list-style-type: none"> <li>• Hold to run function; and</li> <li>• Edge protection (mechanical safety edge or light curtain)</li> </ul>					
<b>L Lightning Protection (to be completed by the Professional Engineer (Electrical) for the lightning protection system)</b>						
<b>Part 1: Air Termination System</b>						
	SS555: 2018	Protection of exposed corners of roof				
	CI 8.6.1	<ol style="list-style-type: none"> <li>1. Provision of air-termination rods unless metal roof is adopted for bus stop.</li> <li>2. Provision of suitable air-finials to exposed lift shaft roof's corners.</li> </ol>				

<b>Part 2: Down Conductor System</b>						
SS555: 2018 CI 8.1	Protection against touch voltages  <i>Note: For bus stops at ground level, the design adopted shall comply with ZB.9.1.</i>					
SS555: 2018 CI 5.5	Components  <i>Note: Please see SS555 Table 5 LPS materials and conditions of use.</i>					
<b>Part 3: Earth System</b>						
SS555: 2018 CI 8.2	Protection measures against step voltages  <i>Note: Bonding by lashing for mesh earth-termination system and structural floor slabs are acceptable means of equipotentialization to reduce step voltage to a tolerable level.</i>					
<b>N</b>	<b>Use of glass at height</b>					
	3.3	Monolithic tempered glass, heat-soaked tempered glass or other types of glass that are prone to spontaneous breakage is used at				

		a height of 2.4m or more, and suitable protection such as installation of screens or shields is provided to protect people from any injury.				
	3.4	All glass used comply with SS341				
<b>P Daylight Reflectance</b>						
	3.2	The façade materials comply with the daylight reflectance and specular reflectance value specified.				

**Submitted by :**

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**Name and Signature of QP (Design)**

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**Date**

## **Annex B**

### **Supporting documents to be submitted by QP for TOP application for standalone bus shelters and lift to pedestrian overhead bridges developed by LTA**

1	BCA: Form BC-BC - Builder's Certificate of Completion of the Building Works
2	BCA: Form BCA-CSC-TOPCSCDQP - Declaration by Qualified Person (Design)
3	BCA: Declaration by Qualified Person (Design) on Compliance with Daylight Reflectance for External Surface
4	BCA: Form BCA-CSC-CSPBW - Certificate of Supervision of Building Works
5	BCA: Form BPD_CSC03 - Certificate of Supervision of Lightning Protection System As-built lightning protection plan and commissioning test report.
6	BCA: As-built Drawings
7	Completed photos in place of physical TOP inspection
8	NParks Development Control (DC) Clearance Note: NParks CSC clearance still required at CSC application stage.
9	NEA CSC Clearance (obtained through Lodgement Scheme for Minor Development Projects (MDPs))
10	PUB TOP Clearance <u>Not Required</u> . Note: PUB CSC clearance still required at CSC application stage.
11	LTA (DBC) Roads Clearance <u>Not Required for LTA in-house projects</u>
12	URA Clearance <u>Not Required</u>
13	SCDF Clearance <u>Not Required</u>