

Our ref : APPBCA-2025-09

Building Resilience Group

23 May 2025

See Distribution List

Dear Sir/Madam

Use of Accredited Drone Service Providers for Periodic Façade Inspections

Background

1. Building owners may be required by the Commissioner of Building Control (“**CBC**”) to carry out periodic inspections of their building facades. A competent person (“**CP**”) appointed by a building owner to conduct a façade inspection must do so in accordance with the Building Control Act 1989 and the Building Control (Periodic Inspection of Buildings and Building Facades) Regulations 2021 (the “**Regulations**”).
2. Among others, a CP must carry out, with reasonable diligence, a visual survey to observe and assess the condition of the entire building façade (“**Visual Inspection**”). The Visual Inspection must be conducted (a) at an appropriate distance from ground level or other suitable vantage points, and (b) using photographic cameras to capture images of the entire façade. Alternatively, the CP may carry out a Visual Inspection using such method, technology and equipment approved by the CBC.

Objective

3. This circular informs the industry that the CBC approves, with effect from the date of this circular, under regulation 15(2)(a)(ii) of the Regulations, the CP (or a Façade Inspector under the CP’s direct supervision and control) to use unmanned aircraft systems (“**UAS**”) operated by an accredited UAS service provider to carry out Visual Inspection, provided that before carrying out a Visual Inspection using a UAS operated by an accredited UAS service provider, the CP must notify the CBC by submitting the attached form to the CBC.

Accredited UAS Service Providers

4. To ensure the safety, efficiency, and quality of Visual Inspections carried out using UAS, BCA has collaborated with the Institution of Engineers Singapore, Enterprise Singapore, and GovTech to develop and launch an accreditation programme for UAS service providers in July 2023. Under this accreditation programme, "Accreditation of Inspection Bodies in Building Façade Inspection using Unmanned Aircraft Systems (UAS)", UAS service providers are audited on their:
- (a) Expertise in building façade inspection;
 - (b) Compliance with safety regulations and industry best practices;
 - (c) Use of trained and experienced drone pilots;
 - (d) Use of approved equipment and software;
 - (e) Performance of AI systems in auto-detection of façade defects and auto-anonymisation;
 - (f) Adherence to data protection and privacy standards; and
 - (g) Proper record management, retention, and traceability.

Accordingly, BCA encourages the industry to procure UAS from accredited UAS service providers. To verify a UAS service provider's accreditation status, please visit the Singapore Accreditation Council website at: <https://www.sac-accreditation.gov.sg>.

5. CPs are reminded of their duty, among others, to comply with regulation 16(3) of the Regulations, to ensure that an accredited UAS service provider operates the UAS in the presence of the CP (or an FI under the direct supervision and control of the CP) in accordance with the CP's instructions, and the CP must personally review all photographs, images, readings or reports produced from the UAS, in consultation with any other specially trained person where appropriate.
6. For the avoidance of doubt:
- (a) the CBC may revoke or amend his approval as described in paragraph 3 above by further written notice; and
 - (b) the approval in paragraph 3 above does not apply to UAS operated by non-accredited UAS service provider. CBC's written approval must still be obtained for the use of UAS operated by non-accredited UAS service provider.

7. We kindly request that you disseminate this information to your members. For further clarification, please submit enquiries via the BCA online feedback form.

Yours sincerely,



LEE CHEE WEYE
DIRECTOR
FAÇADE ENGINEERING AND TECHNOLOGY DEPARTMENT
BUILDING RESILIENCE GROUP
BUILDING AND CONSTRUCTION AUTHORITY
FOR AND ON BEHALF OF COMMISSIONER OF BUILDING CONTROL

Extracts of the Building Control (Periodic Inspection of Buildings and Building Facades) Regulations 2021:

How façade inspection to be carried out

- 15 (2) First, the appointed competent person must with reasonable diligence carry out —
- (a) a visual inspection of the façade of the building, consisting of a visual survey carried out to observe and assess the condition of the entire façade —
 - (i) using the method, technology and equipment described in paragraph (3) and in the manner allowed by regulation 16; or
 - (ii) using such other equivalent method, technology or equipment as may be approved by the Commissioner and in the manner allowed by regulation 16; and

Example

Drone or similar unmanned aircraft designed for aerial survey.

- 15(3) A visual inspection of the façade of a building to observe and assess the condition of the entire façade of the building must be carried out —
- (a) at an appropriate distance from ground level or other suitable vantage points; and
 - (b) using photographic cameras whereby photographs or still images of the entire façade may be taken.

Vicarious visual or close-range inspection

- 16(3) Without limiting paragraph (1), if an appointed competent person uses an equivalent method, technology or equipment as approved by the Commissioner under regulation 15(2)(a)(ii) or (b)(ii) to carry out a visual inspection under regulation 15(2)(a), or a close-range inspection under regulation 15(2)(b), of the façade of a building but is not doing so in person, it is the duty of the appointed competent person —

- (a) *to ensure that any person who is engaged to operate that equipment or any apparatus necessarily involved in that method or technology, does so —*
 - (i) *in the presence of the appointed competent person, or a façade inspector who is under the direct supervision and control of the appointed competent person; and*
 - (ii) *in accordance with the instructions of the appointed competent person; and*
- (b) *to personally review all photographs, images, readings or reports produced from the equipment or device used, in consultation with any other specially trained person where appropriate.*

DISTRIBUTION (via e-mail):

President

Singapore Institute of Architects (SIA)
79 Neil Road
Singapore 088904

President

Association of Consulting Engineers, Singapore (ACES)
18 Sin Ming Lane
#06-01 Midview City
Singapore 573960

President

Institution of Engineers, Singapore (IES)
70 Bukit Tinggi Road
Singapore 289758

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#07-01 Singapore Shopping Centre
Singapore 239924

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Singapore Contractors Association Limited (SCAL)
1 Bukit Merah Lane 2
Construction House
Singapore 159760

President

Singapore Green Building Council (SGBC)
200 Braddell Road
Block H, Level 2 BCA

An MND Statutory Board

President

Singapore Institute of Building Limited (SIBL)
200 Braddell Road
BCA Braddell Campus, Blk H #02-01
Singapore 579700

President

Singapore Institute of Surveyors & Valuers (SISV)
110 Middle Road
#09-00, Chiat Hong Building
Singapore 188968

President

Association of Property & Facility Managers (APFM)
110 Middle Road
#09-00, Chiat Hong Building
Singapore 188968

President

International Facility Management Association, Singapore Chapter (IFMA)
Killiney Road Post Office
P.O. Box 2104
Singapore 912352

President

Society of Project Managers (SPM)
Macpherson Road P.O. Box 1083
Singapore 913412

Registrar

Board of Architects (BOA)
5 Maxwell Road 1st Storey
Tower Block, MND Complex
Singapore 069110

Registrar

Professional Engineers Board, Singapore (PEB)
52 Jurong Gateway Road #07-03
Singapore 608550

An MND Statutory Board

Director

Building and Infrastructure
Defence Science & Technology Agency (DSTA)
1 Depot Road
Defence Technology Tower A
Singapore 109679

Deputy Chief Executive Officer

Building
Housing & Development Board (HDB)
480 Lorong 6 Toa Payoh
HDB Hub
Singapore 310480

Deputy Chief Executive

Infrastructure & Development
Land Transport Authority (LTA)
1 Hampshire Road
Block 8 Level 1
Singapore 219428

Director

Land Planning Division
JTC Corporation (JTC)
8 Jurong Town Hall Road
The JTC Summit
Singapore 609434

Director of Infrastructure

School Campus Department
Ministry of Education (MOE)
1 North Buona Vista Drive
Office Tower Level 9
Singapore 138675

Chief

Healthcare Infrastructure Project
MOH Holdings Pte Ltd (MOHH)
1 Maritime Square
#11-25, Harbourfront Centre
Singapore 099253

Chief Engineer

Development Control Department
National Environment Agency (NEA)
40 Scotts Road
Environment Building
Singapore 228231

Group Director

Policy & Planning Division
National Parks Board (NPARKS)
Singapore Botanic Gardens
1 Cluny Road
Singapore 259569

Director (Building & Estates Management)

People's Association (PA) 9
King George's Avenue
Singapore 208581

Deputy Director

Centralised Service Department, Building Plan
Public Utilities Board (PUB)
40 Scotts Road
Environment Building
Singapore 228231

Senior Director

Fire Safety Department
Singapore Civil Defence Force (SCDF)
HQ Singapore Civil Defence Force
91 Ubi Avenue 4
Singapore 408827

An MND Statutory Board

Assistant Chief Executive
Sentosa Development Corporation (SDC)
33 Allanbrooke Road, Sentosa
Singapore 099981

Chief
Sport Infrastructure Group
Sport Singapore (SportSG)
3 Stadium Drive
Singapore 397630

Assistant Chief Executive
Policy & Planning Group
Singapore Tourism Board (STB)
1 Orchard Spring Lane
Tourism Court
Singapore 247729

Chief Executive Officer
Urban Redevelopment Authority (URA)
45 Maxwell Road
The URA Centre
Singapore 069118

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To: COMMISSIONER OF BUILDING CONTROL
BUILDING AND CONSTRUCTION AUTHORITY

**PERIODIC FACADE INSPECTION (PFI) OF BUILDINGS
[SECTION 28 OF THE BUILDING CONTROL ACT 1989]**

**APPROVAL OF METHOD, TECHNOLOGY OR EQUIPMENT FOR VISUAL INSPECTION UNDER
REGULATION 15(2)(a)(ii) OF THE BUILDING CONTROL (PERIODIC INSPECTION OF BUILDINGS
AND BUILDING FACADES) REGULATIONS 2021 (THE “REGULATIONS”)**

PFI NOTICE NUMBER :
BUILDING ADDRESS :

We refer to the PFI Notice in respect of the abovementioned building (the “PFI Notice”).

2. As the appointed Competent Person, I propose to use Unmanned Aircraft System (“UAS”) technology to assist me in carrying out visual inspection of the building as required under Regulation 15(2)(a)(ii) and Regulation 16 of the Regulations. I confirm that the UAS is operated by the accredited UAS service provider mentioned below and enclose the accreditation certificate for your reference:

| | |
|----------------------------------|--|
| Name of UAS Service Provider | |
| UEN Number | |
| Accreditation Certificate Number | |
| Expiry of Certificate* | |

*CP to ensure the accreditation status is valid at time of carrying out of visual inspection

3. Please note that this Approval is case specific and is only applicable to the abovementioned PFI Notice. Should there be a change in the UAS Service Provider for the purpose of this PFI Notice, I will seek a fresh approval from the Commissioner of Building Control under Regulation 15(2)(a)(ii) of the Regulations before commencement of the PFI works.

NOTES FOR CP

1. Your attention is drawn to the requirements found in Regulation 16(3), which includes ensuring that the UAS Service Provider operates the UAS in your presence or anyone under your direct supervision and control as well as for you to review all photographs, images, readings, or reports produced from the UAS. For the avoidance of doubt, the UAS Service Provider remains subject to its duties and obligations under any applicable laws and regulations.
2. As part of BCA's efforts to enhance the performance and credibility of UAS facade inspection systems, we seek your kind cooperation to furnish the original images of any defects in the façade captured during the UAS inspection as required by the BCA officer-in-charge. The photo files of said defects shall be free of any annotation and shall be in .jpg or .png formats with resolution of 0.15 cm/pixel or lower. The image files may be stored in a CD/DVD-ROM or other electronic submission media (e.g. USB drive, hard disk, document link) and may be delivered to our office via physical or electronic means. Please liaise with the BCA officer-in-charge of the PFI Notice in respect of the mode in which the images shall be furnished.