

Harbourfront Commission

For discussion
On 11 April 2016

HC/01/2016

General Requirements of Emergency Vehicular Access

PURPOSE

This paper outlines the Building Authority (BA)'s requirements and the control mechanism in respect of the provision of emergency vehicular access (EVA) for the emergency services of the Fire Services Department (FSD).

BACKGROUND

2. Under section 41D(1) of the Building (Planning) Regulation (Cap. 123F) which came into operation on 31 December 2004, every building shall be provided with EVA which is so designed and constructed as:-

(a) to allow safe and unobstructed access of a vehicle of the Fire Services Department to the building; and

(b) to provide for the safe operation of such a vehicle

in the event of a fire or other emergency. This applies to all building works commenced or consent to the commencement of which was given after 31 December 2004.

3. Section 6 in Part D of the Code of Practice for Fire Safety in Buildings 2011 (the FS Code) provides for circumstances of deemed compliance of section 41D(1) of Cap. 123F.

GENERAL REQUIREMENTS

4. It is necessary to demonstrate compliance of EVA requirements on all general building plan submissions. The technical specifications of an EVA that cater for FSD's operational needs in virgin and redevelopment sites as well as other relevant requirements on design and construction are detailed in **Annex A**.

CONTROL MECHANISM

5. EVA not fully complying with the stipulated requirements, or otherwise considered unacceptable by the FSD may subject the building plan on which it is featured to rejection under section 16(1)(d) of the Buildings Ordinance (Cap. 123).

EXEMPTION AND MODIFICATION

6. Subject to enhancing the Fire Service Installations to the satisfaction of FSD, the BA may exempt a building from full compliance of the EVA requirements under section 41D(3) of Cap. 123F if he is satisfied that such compliance is :-

- (a) Unwarranted on the ground that the purpose for which the building is to be used constitutes a low fire risk; or
- (b) Impracticable having regard to the topographical features of the area on which the building is situated.

7. The BA in consultation with the Director of Fire Services will consider each application for exemption or modification on the merits and specific circumstances of the case.

IMPLEMENTATION

8. The Practice Note for Authorized Persons and Registered Structural Engineers (PNAP) APP-136¹ issued by the BA provides guidelines on satisfying the provisions deeming compliance specified in the FS Code.

9. Guidance notes on exemption and modification in special circumstances (**Annex B**) are also provided in PNAP APP-136 for the information of building professionals. In general, applications for relaxation of the items listed in the guidance notes do not require the submission of a fire safety assessment report to justify that the relevant fire safety standards have not been compromised.

RECOMMENDATION

10. Members are invited to note the control mechanism and general requirements for the provision of EVA as stated.

Buildings Department
April 2016

¹ <http://www.bd.gov.hk/english/documents/pnap/APP/APP136.pdf>

Annex A

Detailed Requirements of EVA

General Requirements of EVA to Virgin Sites

Generally, the requirements for EVA to developments on **virgin sites** are:-

- (a) the width of an EVA in the form of a carriageway should not be less than 7.3m (the EVA should be hard-paved, not less than 6m wide and well demarcated on site if it is not in the form of a carriageway);
- (b) clear headroom of not less than 4.5m;
- (c) the gradient of the EVA should not be steeper than 1:10;
- (d) the EVA should allow safe and unobstructed access and safe operation of a vehicle of the Fire Services Department having the following specifications:-
 - (i) Gross weight 30,000 kg
 - (ii) Turning circle 26m
 - (iii) Length 12m; and
- (e) the EVA should serve at least one major facade of the building.

General Requirements of EVA to Redevelopment Sites

Generally, the requirements for EVA to developments on **redevelopment sites** are:-

- (a) the EVA should have a minimum width of 6m (the EVA should be hard-paved and well demarcated on site if it is not in the form of a carriageway)
- (b) clear headroom of not less than 4.5m;
- (c) the gradient of the EVA should not be steeper than 1:10;

- (d) the EVA should allow safe and unobstructed access and safe operation of a vehicle of the Fire Services Department having the following specifications:-
 - (i) Gross weight 30,000 kg
 - (ii) Turning circle 26m
 - (iii) Length 12m; and
- (e) the EVA should serve at least one major facade of the building.

Other Requirements of EVA

- (a) an emergency crash gate conforming to or equivalent to the Highways Department standards if the EVA is not normally used as access for other vehicles to the building; and
- (b) provision of a sign showing the layout of the EVA.

Harbourfront Commission

HC/01/2016

Annex B

Consideration of Section 6 of Part D in FS Code where Special Circumstances Warranted

| | Situation | FS Code Clause. | Relaxation |
|---|---|----------------------|--|
| 1 | Dead-end EVA | D22.2(d) D23.2 | Non-provision of turning space at dead-end EVA is acceptable should the F.S. appliances need not to reverse more than 30m for turning space. |
| 2 | Run-in/run-out point | D22.2(a) D23.3(c) | The width of EVA may be relaxed to not less than 4.5m. |
| 3 | Domestic building(s) of 3-storey or below, | D22.2(a) D23.3(c) | The width of EVA may be relaxed to not less than 4.5m depending on the topographical constraints. |
| 4 | including single family building(s) to which MOE Code paragraph 5 applies | D22.2(e) D23.3(c) | The horizontal distance between the EVA and the building façade exceeds 10m but within 30m is acceptable subject to the provision of FSI enhancement which may include a hose reel system. |
| 5 | | | The horizontal distance between the EVA and the building façade exceeds 30m is acceptable subject to the provision of FSI enhancement which may include a sprinkler system and/or other enhancements depending on the scope of development, distance from the main road and source of water supply. |
| 6 | A building re-development in an original site such as Class A, B or C site (other than industrial, cinema or theatre) | D23.3(c) | <p>The width of the existing road(s)/street(s) serving as EVA may be relaxed to not less than 4.5m.</p> <p>The requirement on the EVA serving at least one major façade having not less than one-fourth of the total perimeter walls may be relaxed when the topographical features of the site make the compliance impracticable. Notwithstanding the above, the major façade of Class A site being served by EVA shall not be less than the minimum distance between the two opposite side boundaries within 10m from the EVA.; whilst for Class B and C sites, paragraph 24.2(e) should follow.</p> |