



FIRE SAFETY AND SHELTER DEPARTMENT
SINGAPORE CIVIL DEFENCE FORCE

FIRE SAFETY REQUIREMENTS FOR OUTDOOR REFRESHMENT AREAS

FSR 6:2010

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FIRE SAFETY REQUIREMENTS FOR OUTDOOR REFRESHMENT AREAS

1 SCOPE

- 1.1 This FSR stipulates the fire safety provisions for outdoor refreshment areas (ORAs).
- 1.2 The fire safety requirements stipulated herein shall be applicable to all food and beverage outlets where ORAs are permitted by the relevant authorities.
- 1.3 Food and beverage (F&B) outlets shall include eating houses, restaurants, coffee shops, hawker centres, fast food outlets, cafeterias, canteens, pubs and bars.

2 GENERAL

- 2.1 This FSR shall be read in conjunction with the Code of Practice for Fire Precautions in Buildings, namely, the Fire Code.
- 2.2 This FSR shall take precedence for any contradiction in requirements stipulated in this FSR and the above-mentioned code of practice.

3 FIRE SAFETY PROVISIONS

3.1 ORAs along Covered Walkway

- 3.1.1 An escape route of width not less than 1.5m shall be provided along the covered walkway. Only one row of tables and chairs, either abutting the F&B shop front or located at the outer edge of the building, is allowed within the covered walkway. Entrance of the F&B outlet shall not be blocked
- 3.1.2 For F&B outlet located next to an exit staircase, a clear escape path from staircase discharge point to external space shall be maintained. The width of the escape path shall not be less than the width of the exit staircase. No table or chair shall encroach on this escape path at all times.

3.2 ORAs open to the Sky

- 3.2.1 There shall be no limitation on the numbers of table and chair placed in areas open to the sky.
- 3.2.2 When placement of table and chair is extended to any covered walkway, the requirements stipulated under clause 3.1 shall be complied with.
- 3.2.3 There shall be no encroachment of table and chair on the escape path from staircase discharge point to external space.

3.3 ORAs with Umbrellas

- 3.3.1 When umbrellas are used to provide shelter for diners, its size shall not be larger than 2m in diameter or 2m x 2m square. A minimum separation distance of 2m shall be maintained among the umbrellas and with the building line (eaves of building).
- 3.3.2 There shall be no limitation on the number of umbrella placed in areas open to the sky.
- 3.2.3 When placement of table and chair is extended to any covered walkway, the requirements stipulated under clause 3.1 shall be complied with.
- 3.2.4 There shall be no encroachment of table and chair or umbrella on the escape path from staircase discharge point to external space.
- 3.2.5 Umbrella having dimensions larger than 2m in diameter or 2m x 2m square shall be treated as canopy/awning. Hence, requirements stipulated under clause 3.4 shall be complied with.

3.4 ORAs with Canopy/Awning

3.4.1 Setback from staircase discharge

- a) In general, a clear path from the staircase discharge point to the external space shall be maintained
- b) For canopy/awning with projection of not more than 1m and no table and chair beneath, there shall be no encroachment of canopy/awning on the escape path from the staircase discharge point to the external space.
- c) For canopy/awning with projection of more than 1m, a minimum separation distance of 3m between the canopy/awning and the nearer edge of the staircase discharge path shall be maintained.

3.4.2 High/low separation of canopy/awning from unprotected openings

- a) For canopy/awning with projection of not more than 1m and no table and chair beneath, the high/low separation requirements stipulated under clause 3.5.7 of the Fire Code shall not be applicable.
- b) Requirements stipulated under clause 3.5.7 of the Fire Code shall be applicable to all canopies/awnings with projection of more than 1m.

3.4.3 Setback of canopy/awning from building/notional boundary

- a) For canopy/awning with projection of not more than 1m and no table and chair beneath, the requirements on setback of unprotected openings from building/notional boundary stipulated under clause 3.5.3 of the Fire Code shall not be applicable.
- b) Requirements stipulated under clause 3.5.3 of the Fire Code shall be applicable to all canopies/awnings with projection of more than 1m.

3.4.4 Separation between canopies/awnings

- a) For canopy/awning with projection of not more than 1m and no table and chair beneath, no separation is required between the canopy/awning of the F&B outlet and those of the neighbouring units.
- b) For canopy/awning with projection of more than 1m but not larger than 3m, a minimum 1m separation shall be maintained between the canopy/awning of the F&B outlet and the separating wall projection line.
- c) For canopy/awning with projection of more than 3m, requirements stipulated under clause 3.5.3 of the Fire Code shall be complied with.

3.4.5 Material of canopy/awning

- a) There shall be no control on the surface flame spread rating of the canopy/awning with projection of not more than 1m.
- b) For canopy/awning with projection of more than 1m but not larger than 3m, the surface flame spread rating of the canopy/awning shall be minimum Class 2.
- c) For canopy/awning with projection greater than 3m, the surface flame spread rating of the canopy/awning shall be minimum Class 1.
- d) Canopy/awning using plastic materials shall not be allowed.

3.5 Other Fire Safety Requirements

3.5.1 Open-flame cooking

Open-flame cooking shall not be allowed in ORA, except those open to the sky.

3.5.2 Fire sprinkler protection

For buildings which are installed with automatic fire sprinkler system, the sprinkler protection shall be extended to cover the ORAs.

4 APPROVAL OF FIRE SAFETY PLANS

4.1 Application for approval of fire safety plans for ORA shall be required, except for ORA complied FULLY with the following conditions:

- a) An escape route of width not less than 1.5m along the covered walkway is provided.
- b) The number of row of table and chair within the covered walkway, either abutting the F&B shop front or located at the outer edge of the building, is not more than one.
- c) Entrance of the F&B outlet is not blocked by tables, chairs and any other furniture.
- d) For F&B outlet located next to an exit staircase, no table and chair are encroaching on the escape path from staircase discharge point to the external space.
- e) For F&B outlet using umbrellas for its ORA, the size of umbrella is not more than 2m in diameter or 2m x 2m square and the separation among the umbrellas and set back of umbrellas from the building line are more than 2m.
- f) For F&B outlet having canopy/awning at the ORA, the projection of the canopy/awning is not more than 1m with no table and chair beneath it and the canopy/awning is not made of plastic material.
- g) For F&B outlet protected by fire sprinkler system, the sprinkler protection is extended to the covered ORA.

5 FIRE SAFETY CHECKLISTS FOR ORAs

- 5.1 Annexes A and B are fire safety checklists which were designed to assist QPs, RIs and building owners/F&B outlet operators in ensuring that all fire safety requirements for ORAs are complied with.
- 5.2 Annex A summarizes all fire safety requirements stipulated under clause 3 of this FSR. This checklist is for use by QPs and RIs.
- 5.3 Annex B summarizes all fire safety requirements stipulated under clause 4 of this FSR. This checklist is for use by building owners and F&B outlet operators.

FIRE SAFETY CHECKLIST FOR OUTDOOR REFRESHMENT AREA (ORA) - (General)

(Note : The owner/operator shall engage a Qualified Person to submit fire safety plans of the proposed fire safety works to SCDF for approval. Other fire safety requirements stipulated in the Fire Code shall also be complied with. Completed works shall be inspected and certified by the Registered Inspected appointed by the owner/operator.)

S/N	Description	Fire Safety Requirement	Compliance		
			Yes	No	NA*
ORA along covered walkways					
1	Width of escape route between shop front and ORA (see Fig. 1/1a – A)	1.5m min.			
2	Discharge of staircase serving upper storeys (see Fig. 1 – B)	to maintain clear escape path from staircase discharge point to external space			
3	Number of row of table and chair along the walkway (see Fig. 1/1a – C)	1 row max.			
ORA open to sky					
4	Width of escape route between shop front and ORA (see Fig. 2/2a – A)	1.5m min.			
5	Discharge of staircase serving upper storeys (see Fig. 2 – B)	no encroachment of table and chair into escape path from staircase discharge point to external space			
6	Number of row of table and chair				
	a) along the walkway (see Fig. 2/2a – C)	1 row max.			
	b) area opened to sky (see Fig. 2/2a – D)	no control			
ORA with umbrellas					
7	Width of escape route between shop front and ORA (see Fig. 3/3a – A)	1.5m min.			

S/N	Description	Fire Safety Requirement	Compliance		
			Yes	No	NA*
8	Discharge of staircase serving upper storeys (see Fig. 3 – B)	no encroachment of umbrella into escape path from staircase discharge point to external space			
9	Separation between the umbrellas (see Fig. 3 – F)	2m min.			
10	Setback of umbrellas from building line (see Fig. 3/3a – D)	2m min.			
11	Dimensions of umbrella (see Fig. 3/3a – E)	2m dia. max. (round) 2m x 2 m max. (square)			
	Number of row of table and chair along the walkway (see Fig. 3/3a – C)	1 row max.			
12	Number of umbrella with table and chair	no control			
ORA with canopy/awning					
13	Width of escape route between shop front and ORA (see Fig. 4/4a – A, Fig. 5/5a – A, Fig. 6/6a – A)	1.5m min.			
14	Discharge of staircase serving upper storeys				
	a) general (see Fig. 4 – B, Fig. 5 – B, Fig. 6 – B)	to maintain clear escape path from staircase discharge point to external space			
	b) canopy/awning projection not more than 1m with no table and chair beneath (see Fig. 4 – D)	no encroachment of canopy/awning into escape path from staircase discharge point to external space			
	c) canopy/awning projection more than 1m (see Fig. 5 – D, Fig. 6 – D)	canopy/awning, including tables and chairs, to be set back minimum 3m from nearer edge of escape path from staircase discharge point to external space			

S/N	Description	Fire Safety Requirement	Compliance		
			Yes	No	NA*
15	Material of canopy/awning				
	a) canopy/awning projection not more than 1m with no table and chair beneath	no control on surface flame spread rating (no plastic material shall be used)			
	b) canopy/awning projection greater than 1m but not more than 3m	minimum Class 2 surface flame spread rating			
	c) canopy/awning projection greater than 3m	minimum Class 1 surface flame spread rating			
16	High/low separation of canopy/awning				
	a) canopy/awning projection not more than 1m with no table and chair beneath	no control			
	b) canopy/awning projection greater than 1m but not more than 3m	to maintain 9m/5m separation from unprotected opening above			
	c) canopy/awning projection greater than 3m	to maintain 9m/5m separation from unprotected opening above			
17	Setback from building/notional boundary				
	a) canopy/awning projection not more than 1m with no table and chair beneath	no control			
	b) canopy/awning projection greater than 1m but not more than 3m (see Fig. 5 – F)	to comply with setback requirement stipulated in the Fire Code			
	c) canopy/awning projection greater than 3m (see Fig. 6 – F)	to comply with setback requirement stipulated in the Fire Code			
18	Separation between canopies/awnings				
	a) canopy/awning projection not more than 1m with no table and chair beneath	no control			
	b) canopy/awning projection greater than 1m but not more than 3m (see Fig. 5 – E)	to maintain minimum 1m setback from separating wall projection line			

S/N	Description	Fire Safety Requirement	Compliance		
			Yes	No	NA*
	c) canopy/awning projection greater than 3m (see Fig. 6 – E)	to comply with setback requirement stipulated in the Fire Code			
General					
19	Open-flame cooking	not allowed, except for ORAs open to sky			
20	Fire sprinkler protection	for building protected by fire sprinkler system, the sprinkler protection shall be extended to cover the ORA			

*NA – Not Applicable

FIRE SAFETY REQUIREMENTS FOR ORA- GENERAL ILLUSTRATIONS

1. ORA along covered walkway

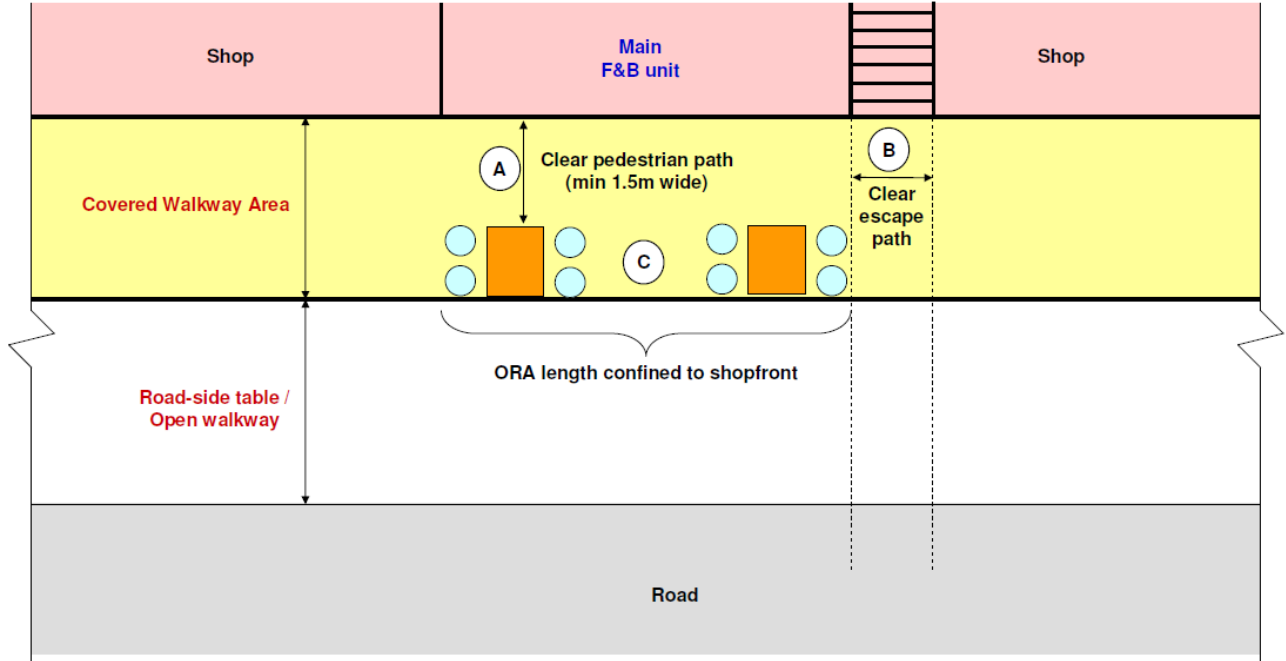


Figure 1 (above)

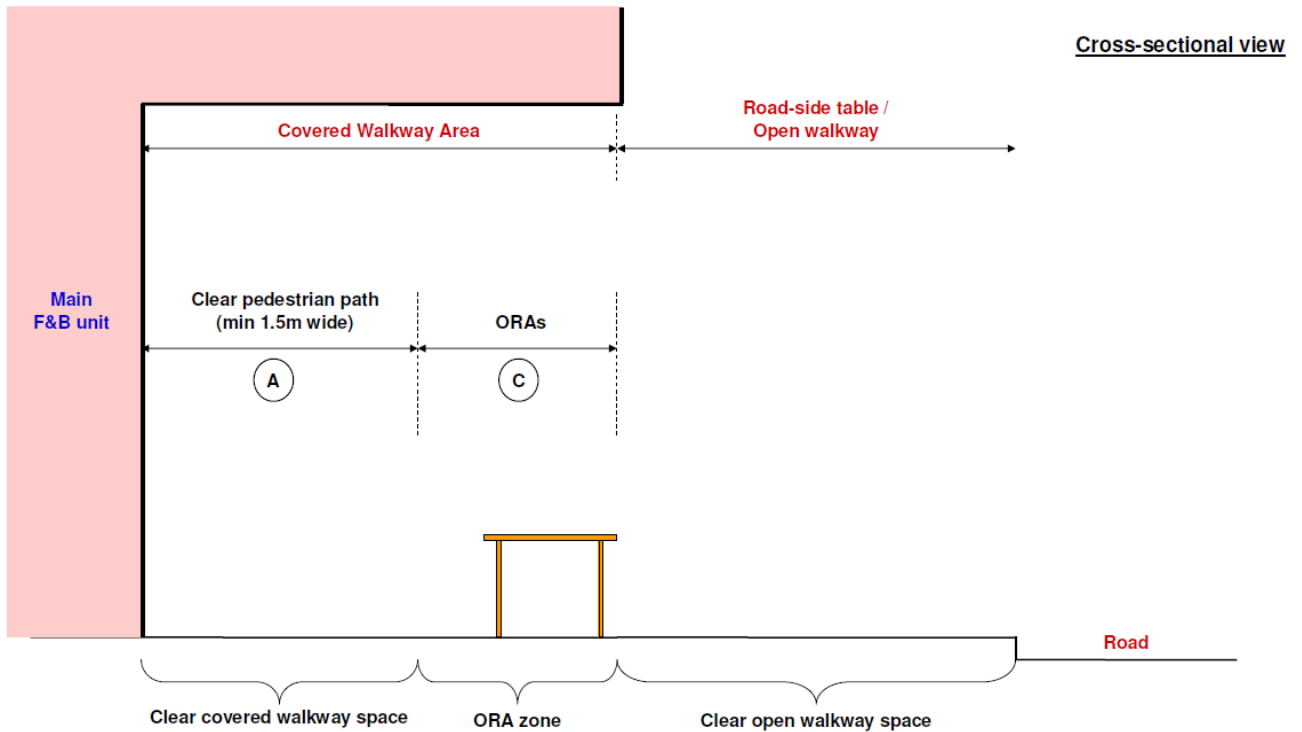


Fig 1a (above)

2. **ORA open to sky**

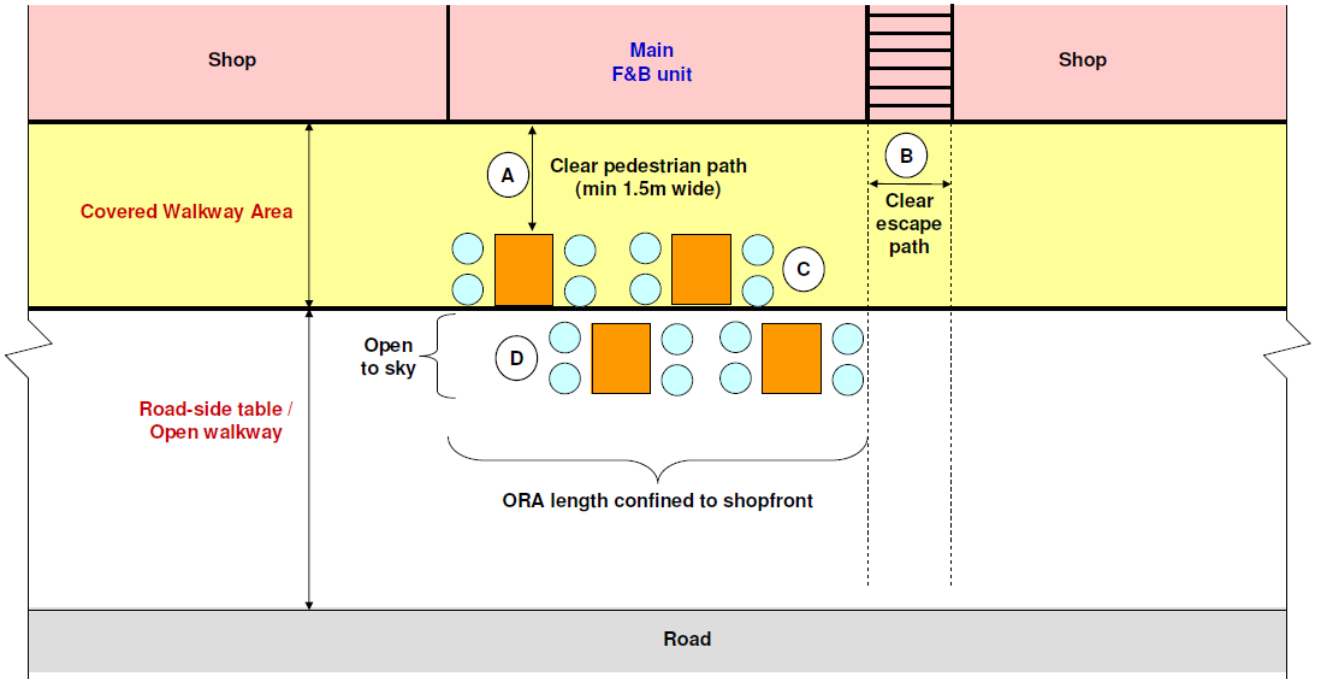


Fig 2 (above)

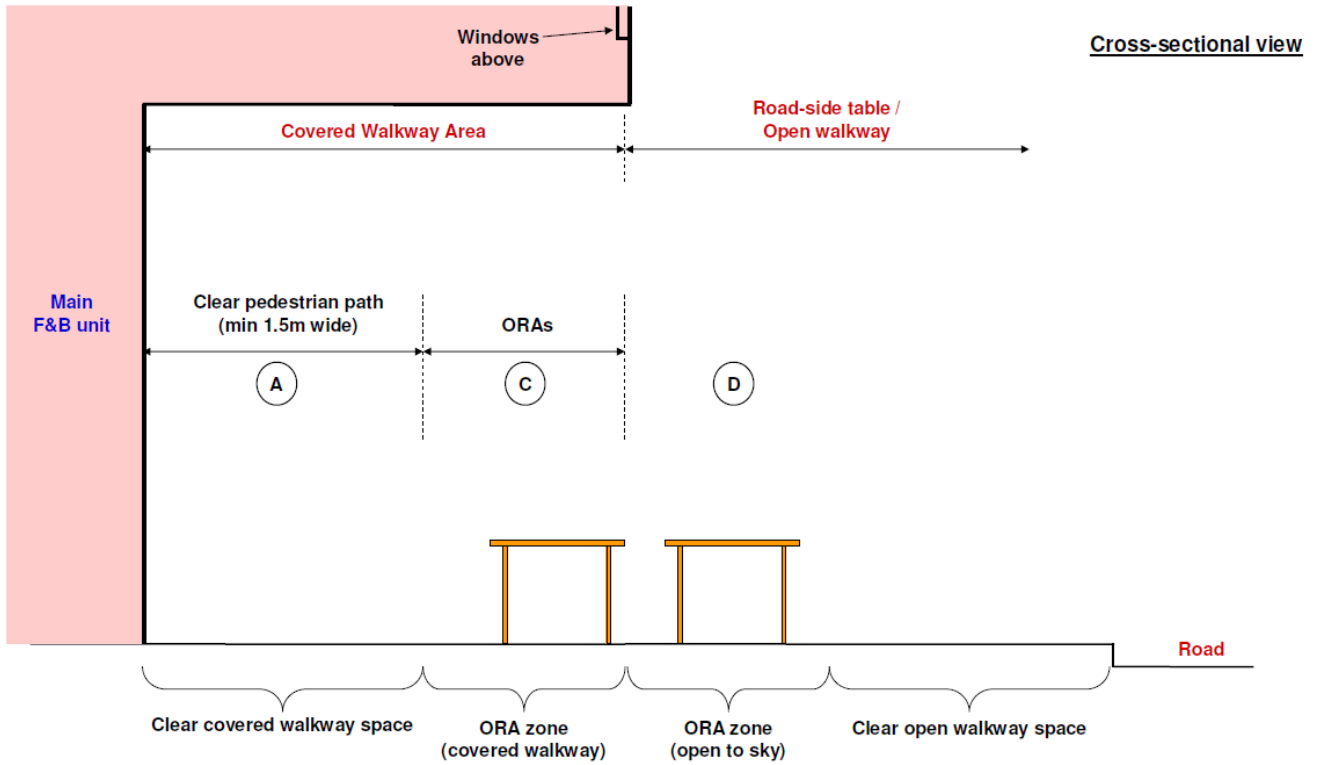


Fig 2a (above)

3. **ORA with umbrella**

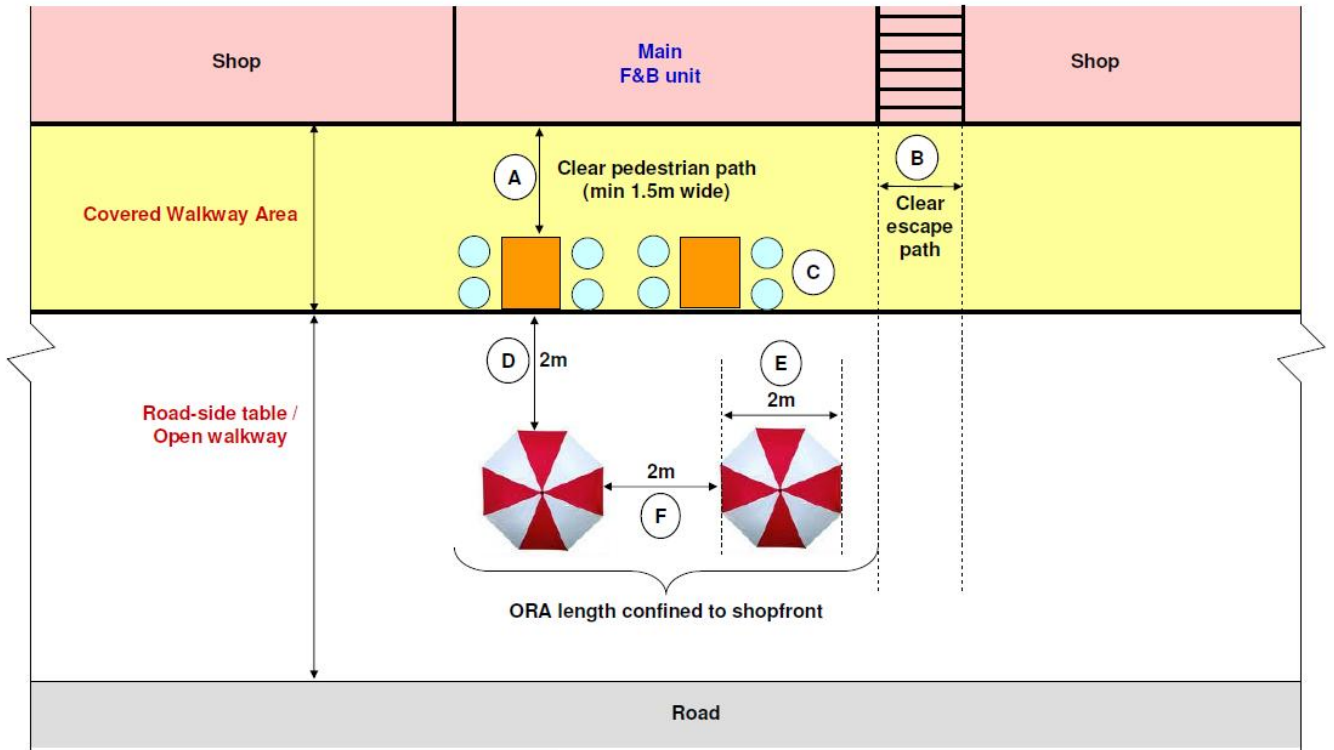


Fig 3 (above)

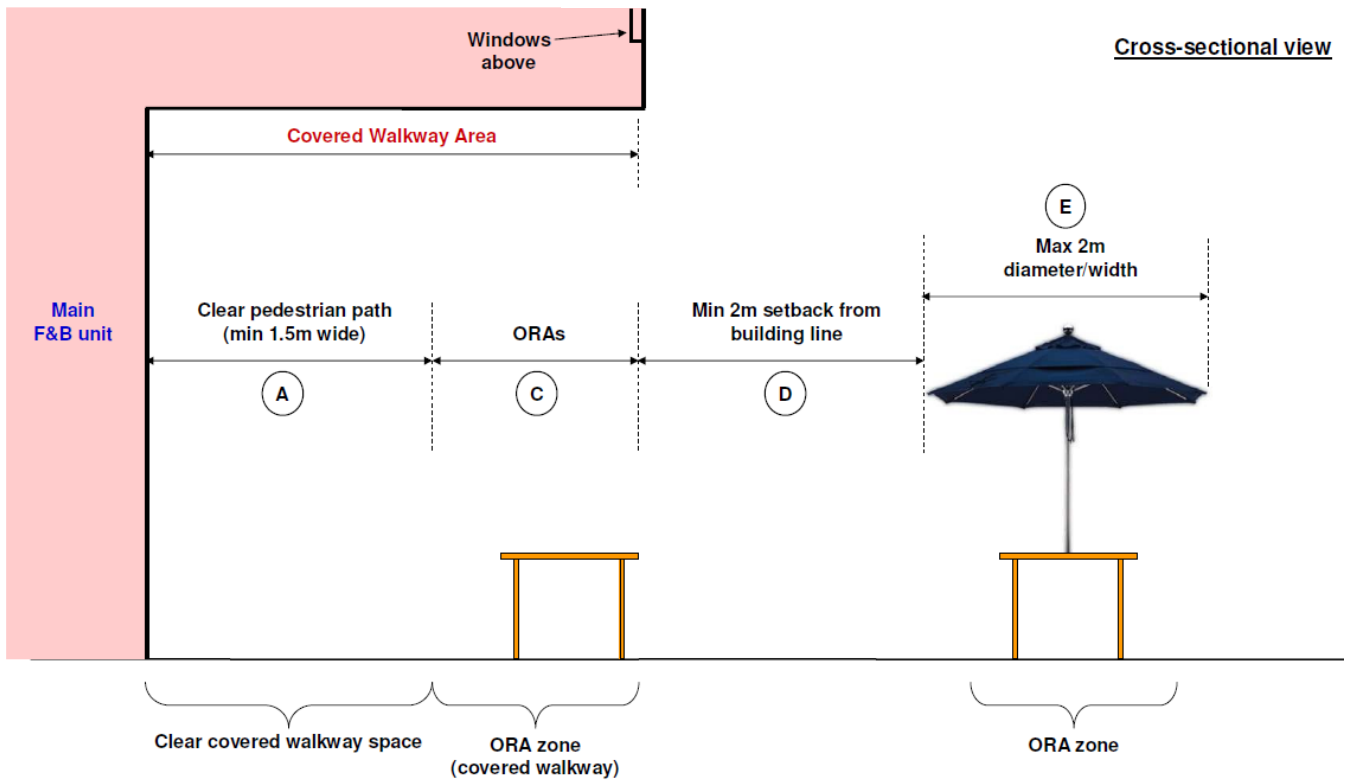


Fig 3a (above)

4. **ORA with canopy/awning**

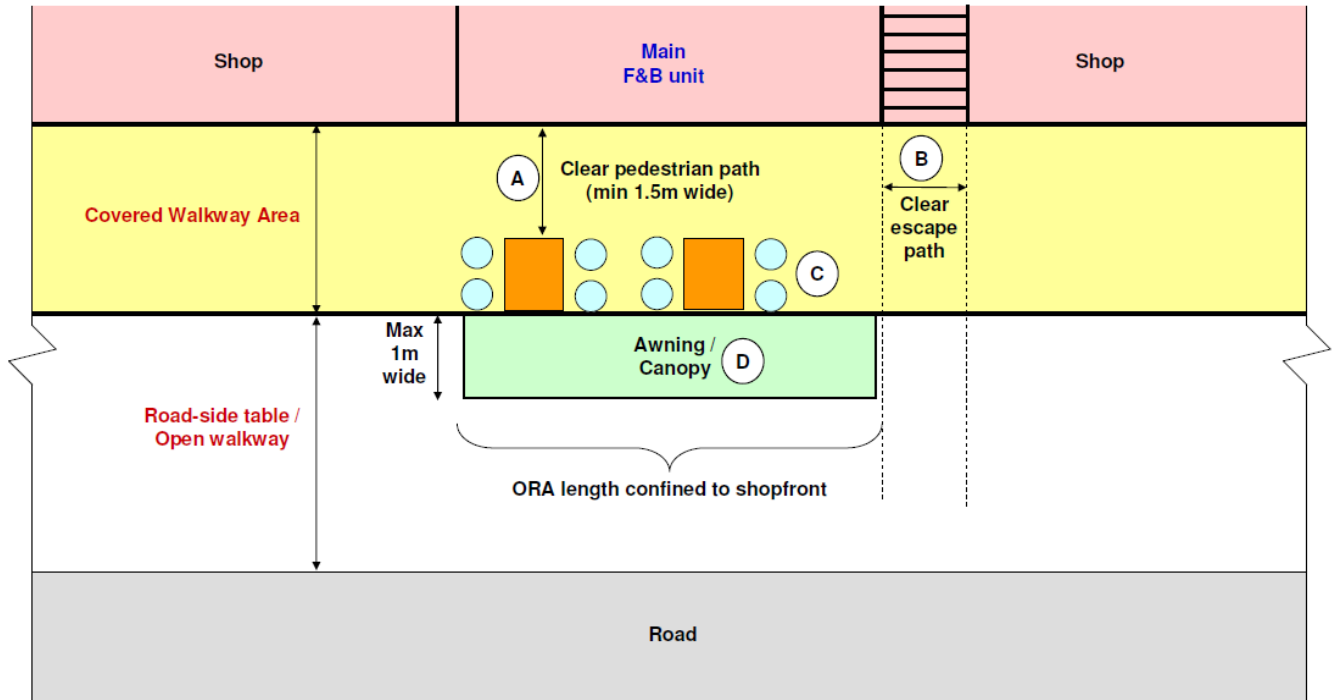


Fig 4 (above)

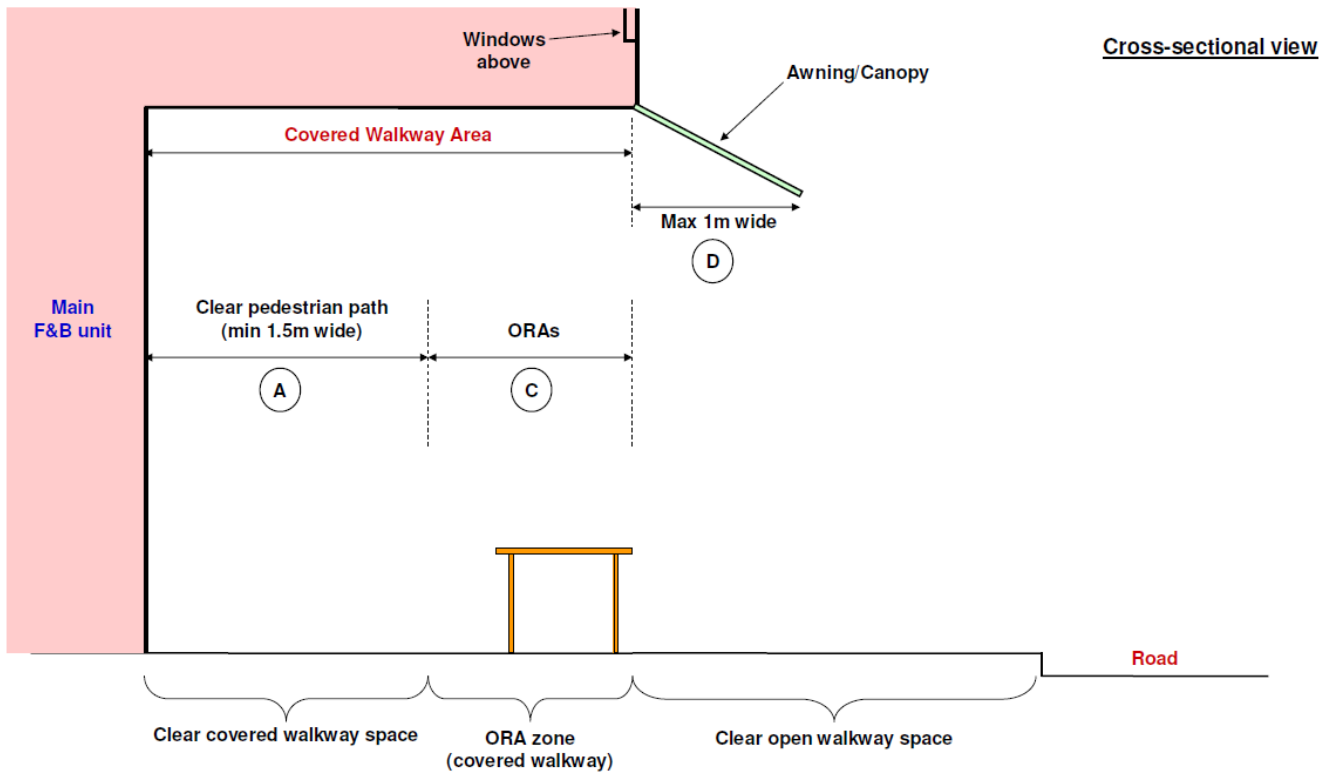


Fig 4a (above)

5. ORA with canopy/awning projection not more than 3m

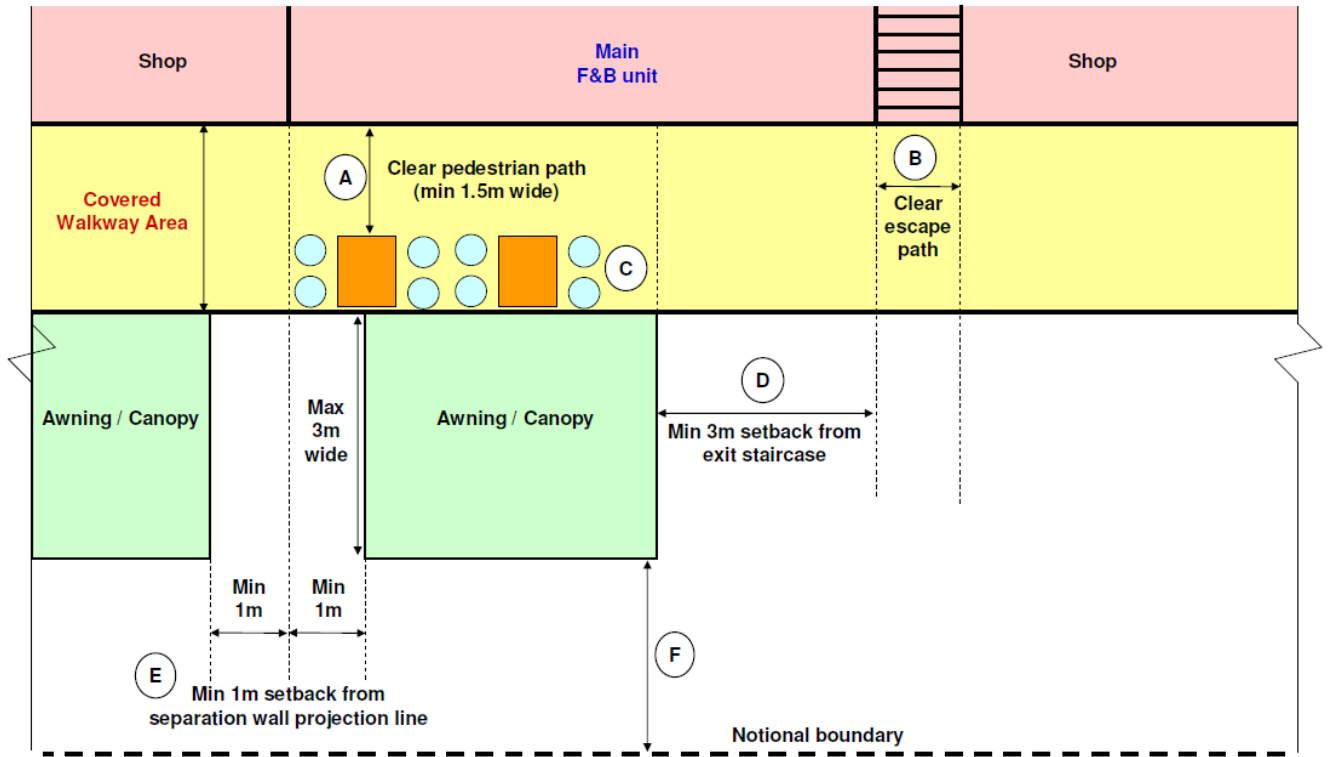


Fig 5 (above)

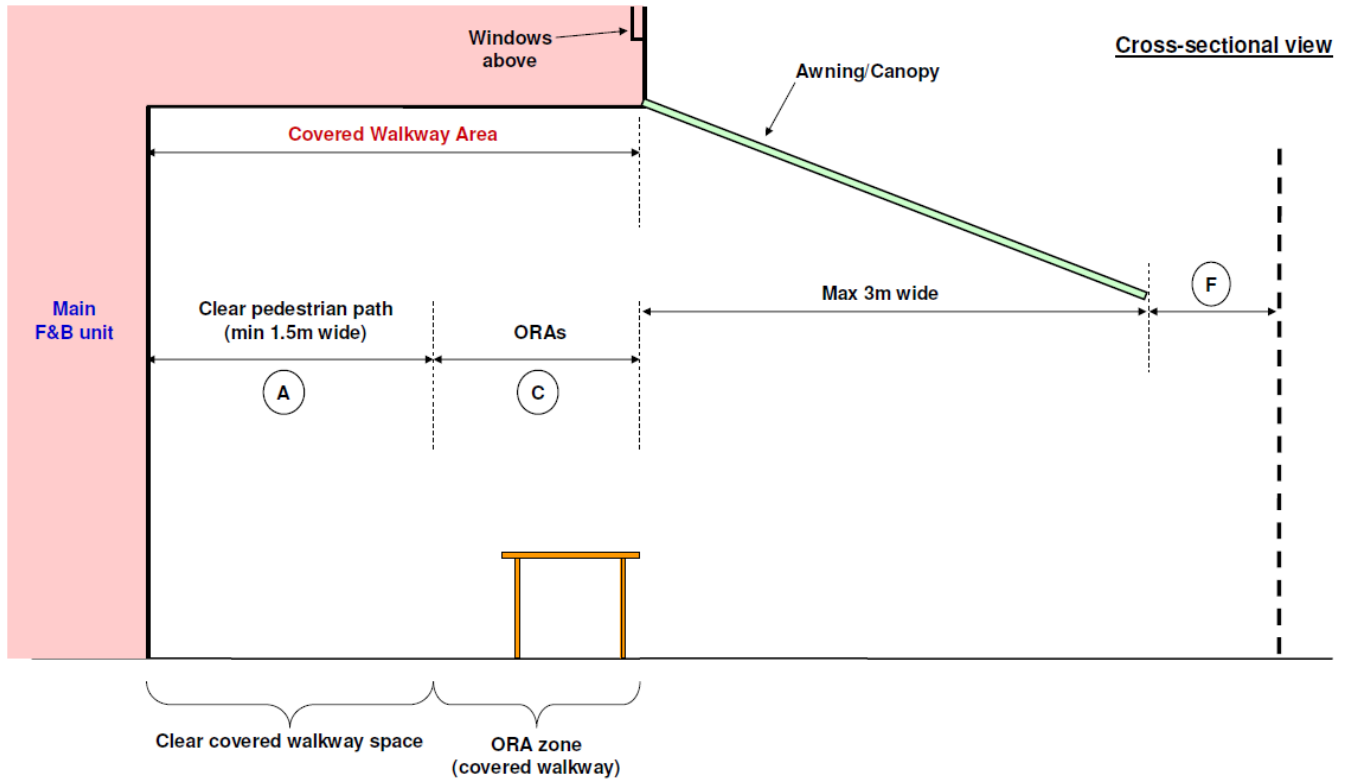


Fig 5a (above)

6. **ORA with canopy/awning projection more than 3m**

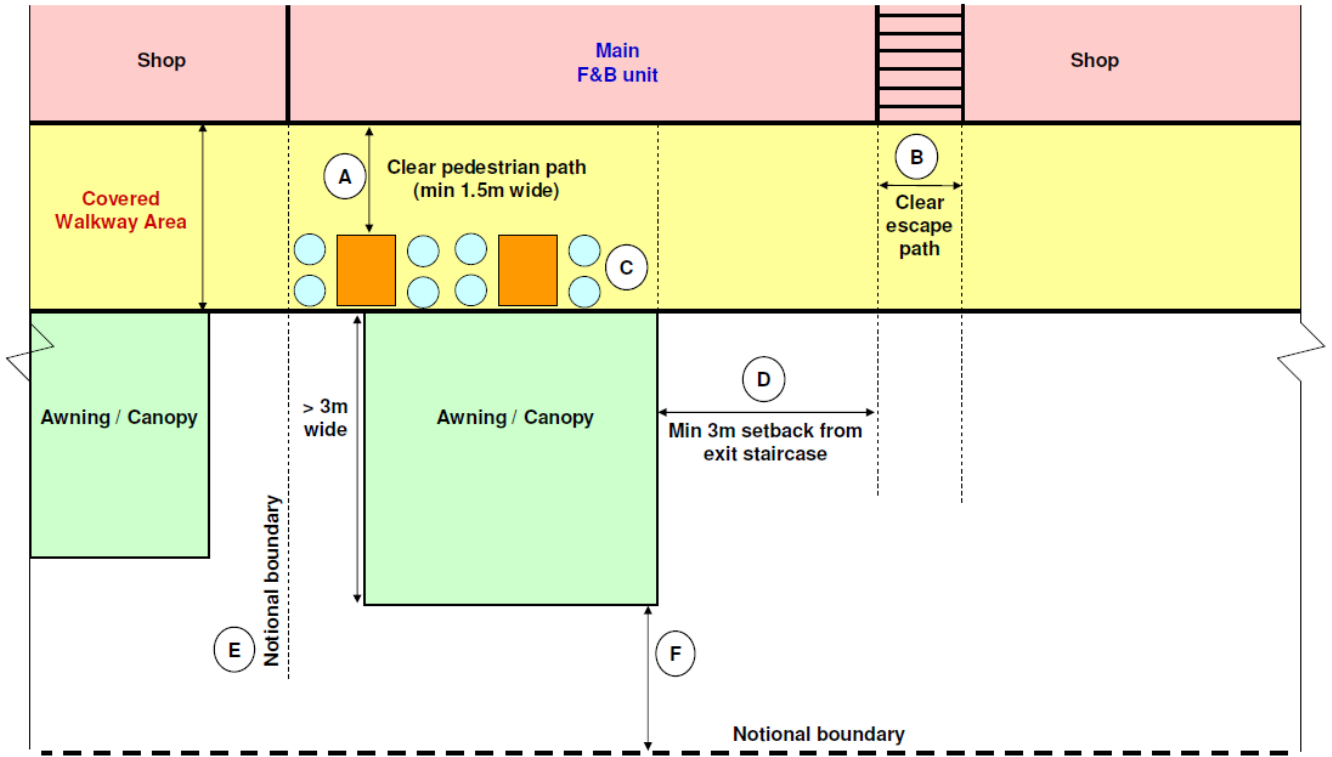


Fig 6 (above)

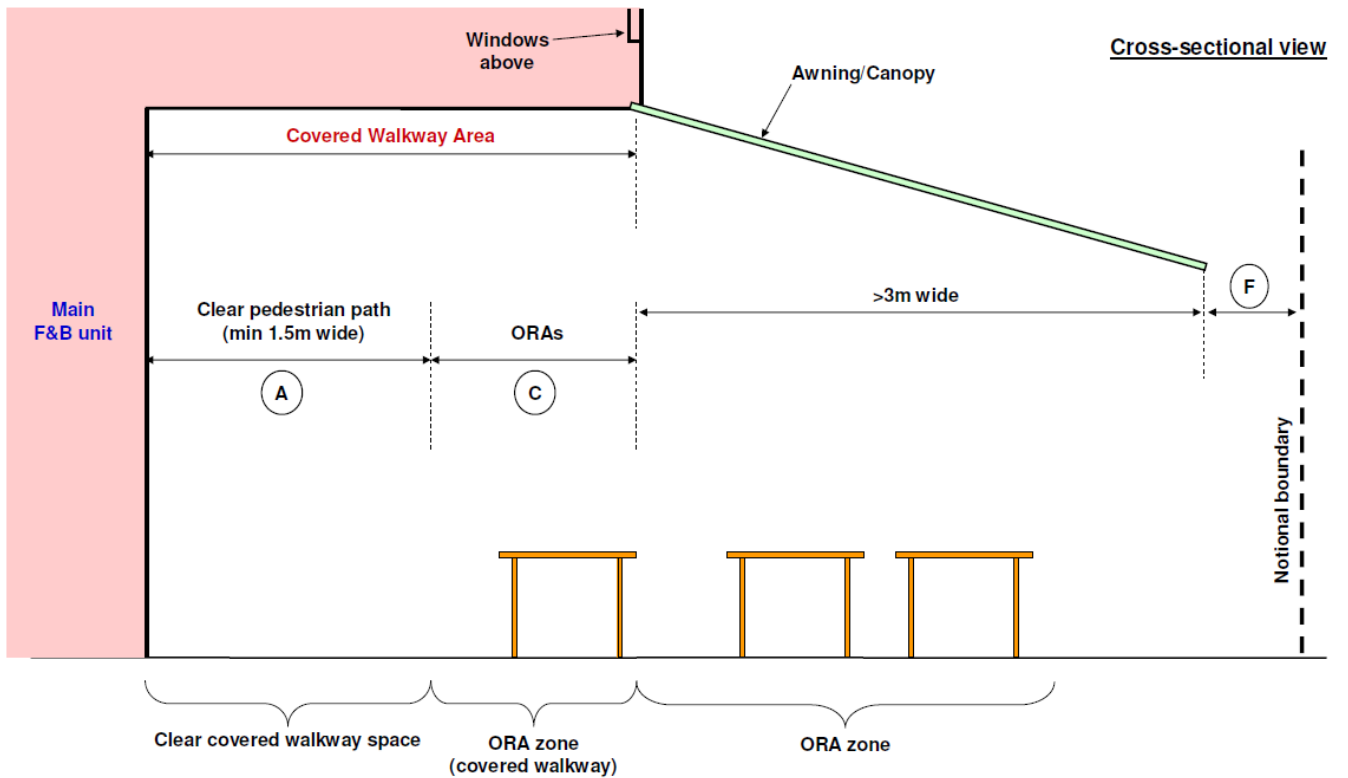


Fig 6a (above)

FIRE SAFETY CHECKLIST FOR OUTDOOR REFRESHMENT AREA (ORA) - (for owner/operator)

(Note : The owner/operator is **NOT REQUIRED** to engage Qualified Person to submit fire safety plans to SCDF for approval if the following requirements, where applicable, are **FULLY COMPLIED** with.)

S/N	Description	Fire Safety Requirement	Compliance		
			Yes	No	NA [#]
ORA along covered walkway					
1	Width of escape route between shop front and ORA (see Fig. 1/1a – A)	1.5m min.			
2	Discharge of staircase serving upper storey (see Fig.1–B)	to maintain clear escape path from staircase discharge point to external space			
3	Number of row of table and chair along the walkway (see Fig. 1/1a – C)	1 row max.			
ORA open to sky					
4	Width of escape route between shop front and ORA (see Fig. 2/2a – A)	1.5m min.			
5	Number of row of table and chair along the walkway (see Fig. 2/2a – C)	1 row max.			
6	No. of row of chair and table in area open to sky (see Fig. 2/2a – D)	no control			
7	Placement of tables and chairs (see Fig. 2/2a – B)	to maintain clear escape path from staircase discharge point to external space			
ORA with umbrella					
8	Width of escape route between shop front and ORA (see Fig. 3/3a – A)	1.5m min.			
9	Number of row of table and chair along the walkway (see Fig. 3/3a – C)	1 row max.			

S/N	Description	Fire Safety Requirement	Compliance		
			Yes	No	NA [#]
10	Discharge of staircase serving upper storeys (see Fig. 3/3a – B)	no encroachment of umbrella into escape path from staircase discharge point to external space			
11	Separation between umbrellas (see Fig. 3/3a – F)	2m min.			
12	Setback of umbrellas from building line (see Fig. 3/3a – D)	2m min.			
13	Dimensions of umbrella (see Fig. 3/3a – E)	2m dia. max. (round) 2m x2 m max. (square)			
14	No. of row of umbrella	no control			
ORA with canopy/awning					
15	Width of escape route between shop front and ORA (see Fig. 4/4a – A)	1.5m min.			
16	Number of row of table and chair along the walkway (see Fig. 4/4a – C)	1 row max.			
17	Discharge of staircase serving upper storey (see Fig.4 – B)	to maintain clear escape path from staircase discharge point to external space			
18	Number of row of table and chair beneath canopy/awning	no table and chair shall be placed under the canopy/awning			
19	Canopy/awning projection (see Fig.4/4a – D)	1m max.			
20	Material of canopy/awning	plastic materials shall not be used			
General					
21	Open-flame cooking	not allowed except in areas open to sky			

[#] NA = Not Applicable

FIRE SAFETY REQUIREMENTS FOR ORA- for owner/operator
ILLUSTRATIONS

1. ORA along covered walkway

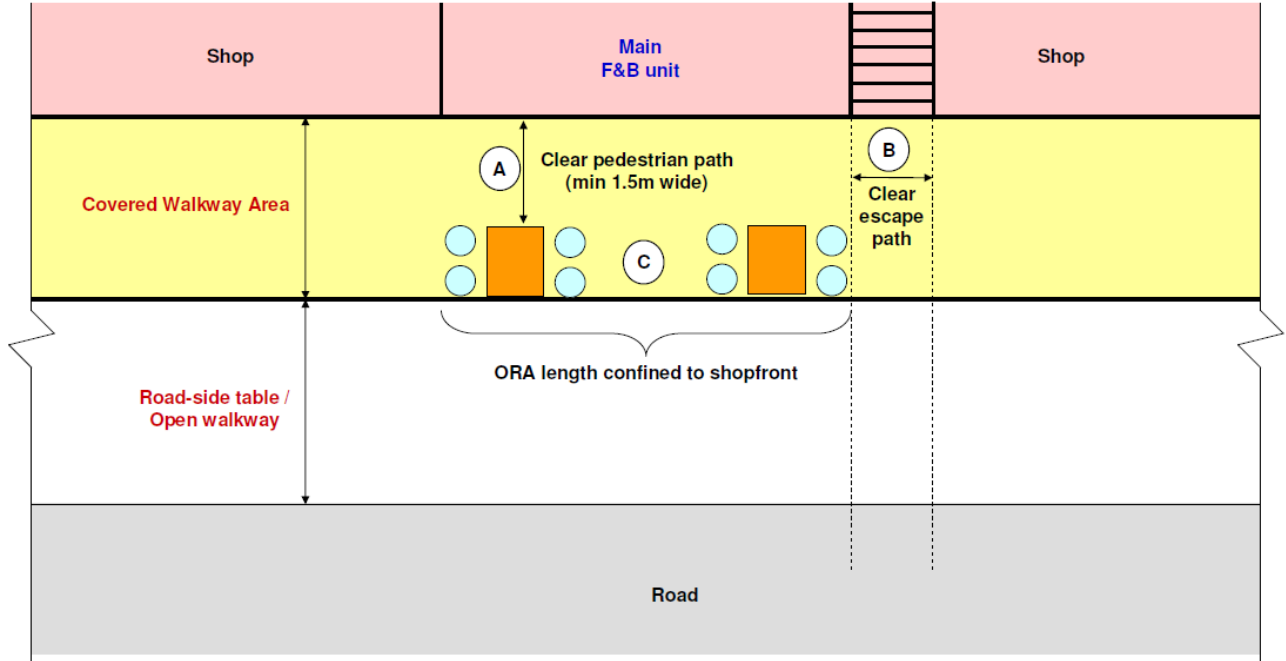


Figure 1 (above)

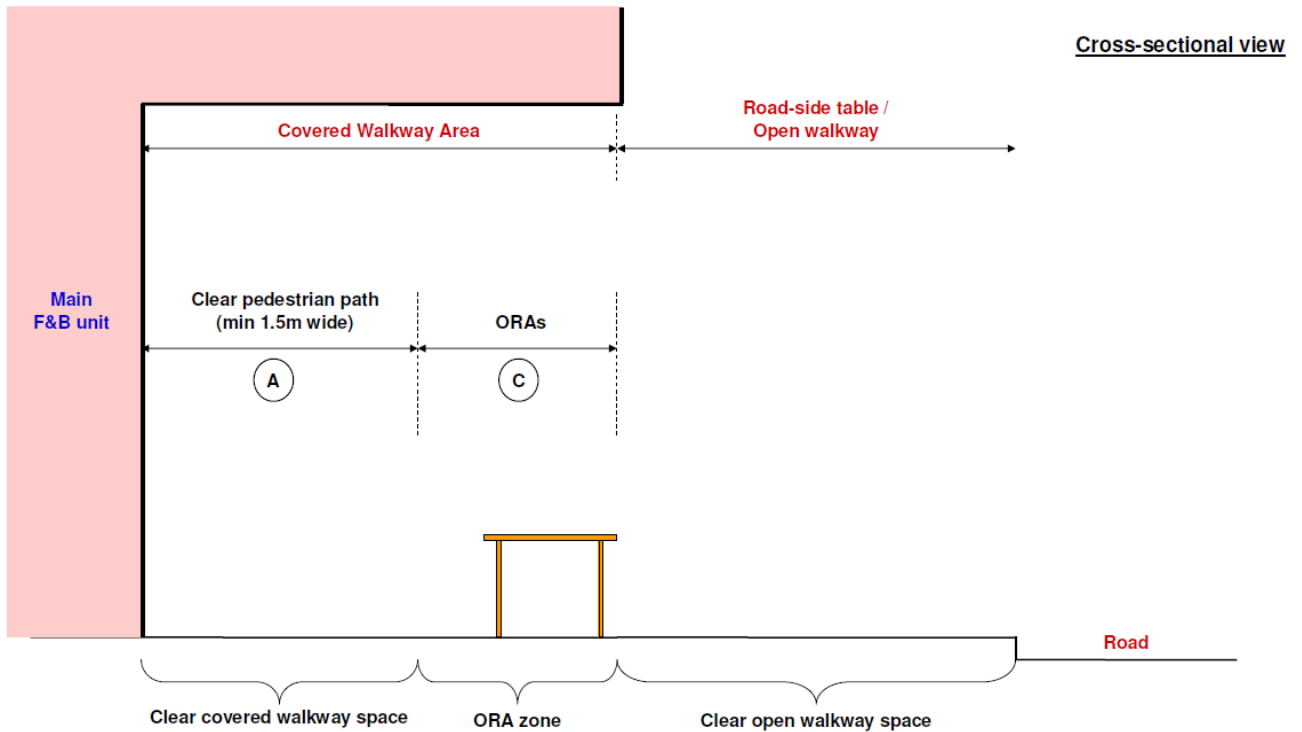


Fig 1a (above)

2. **ORA open to sky**

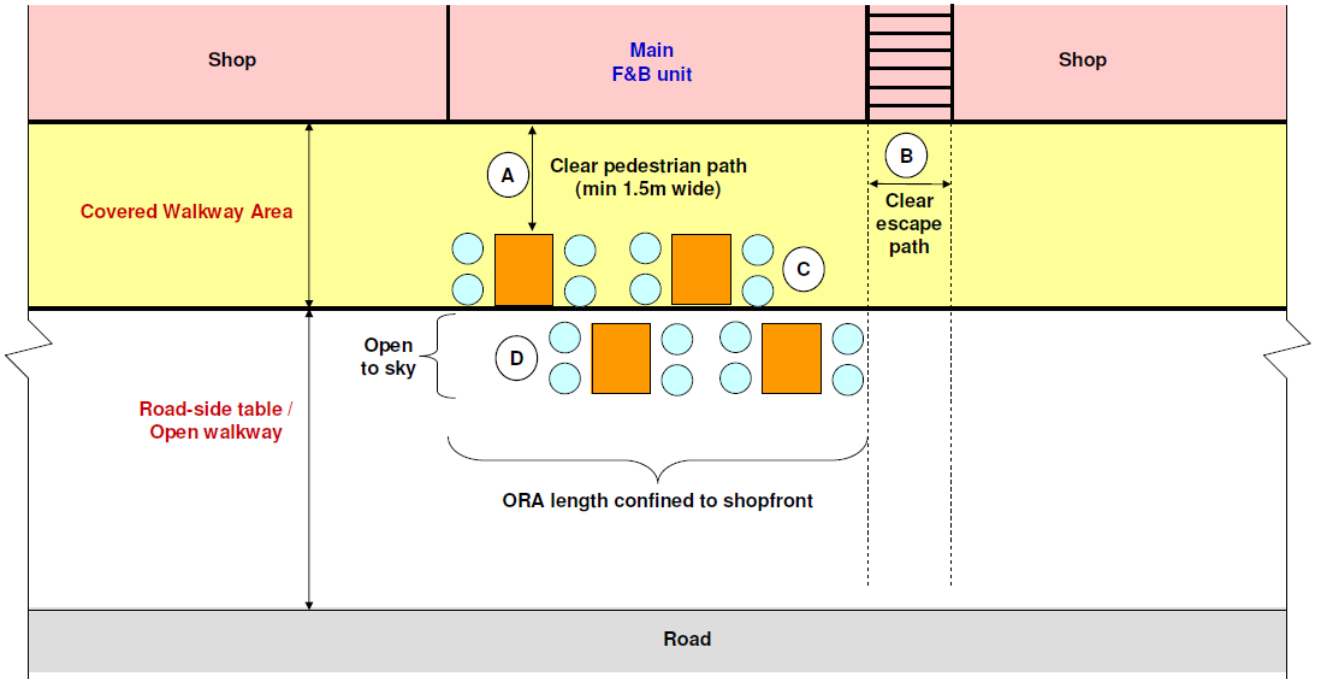


Fig 2 (above)

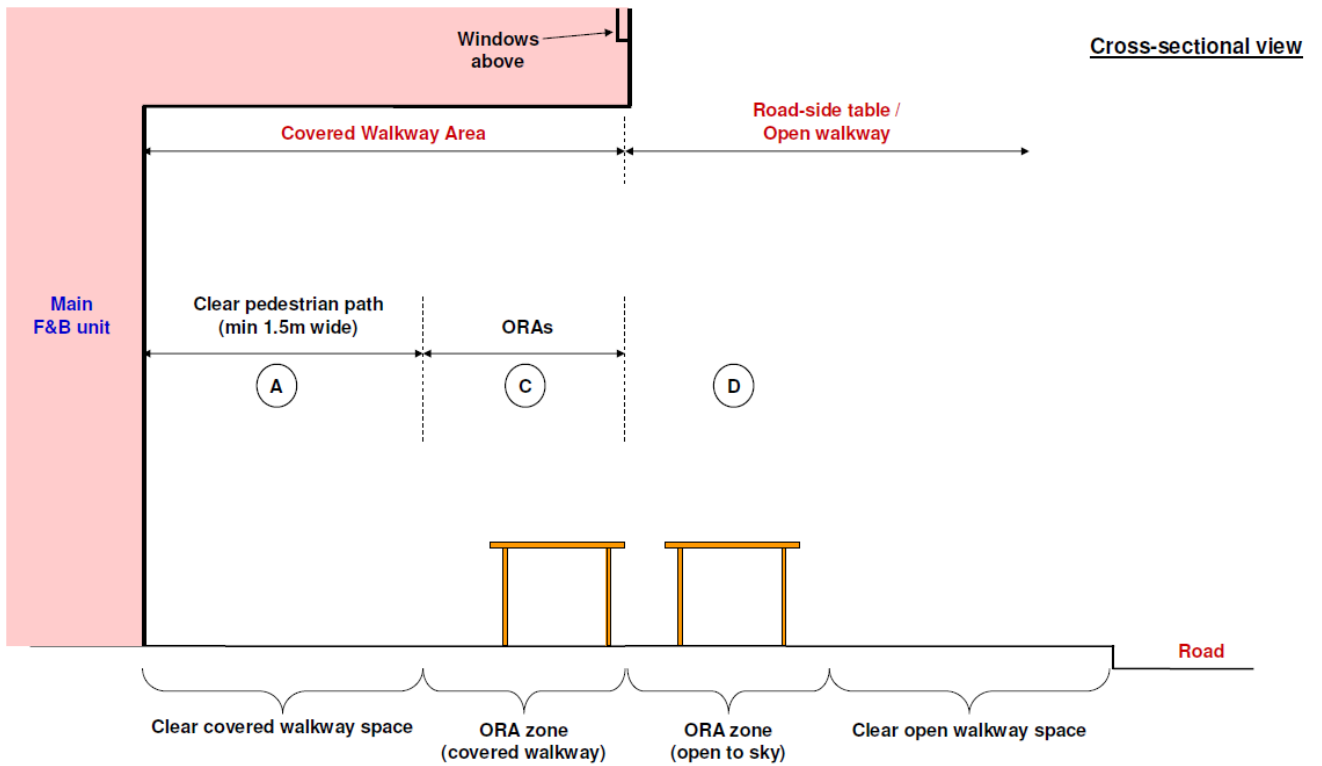


Fig 2a (above)

3. **ORA with umbrella**

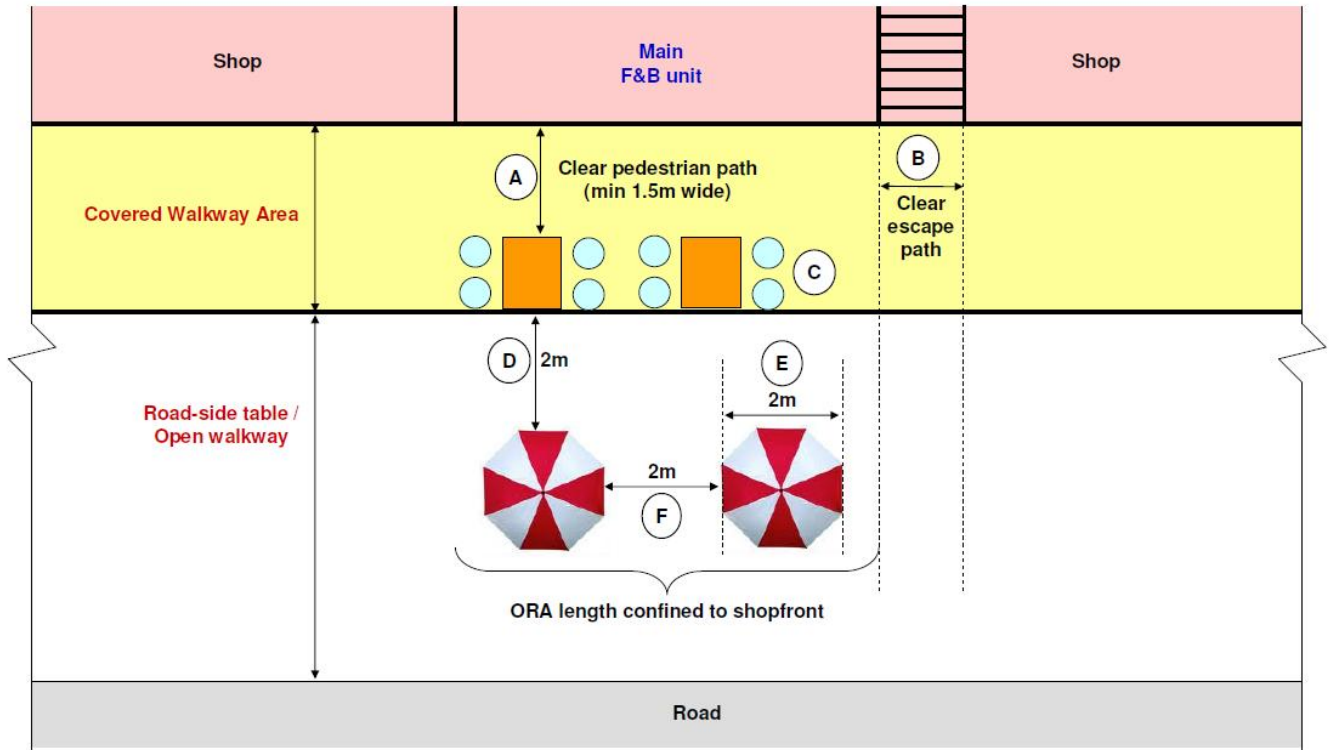


Fig 3 (above)

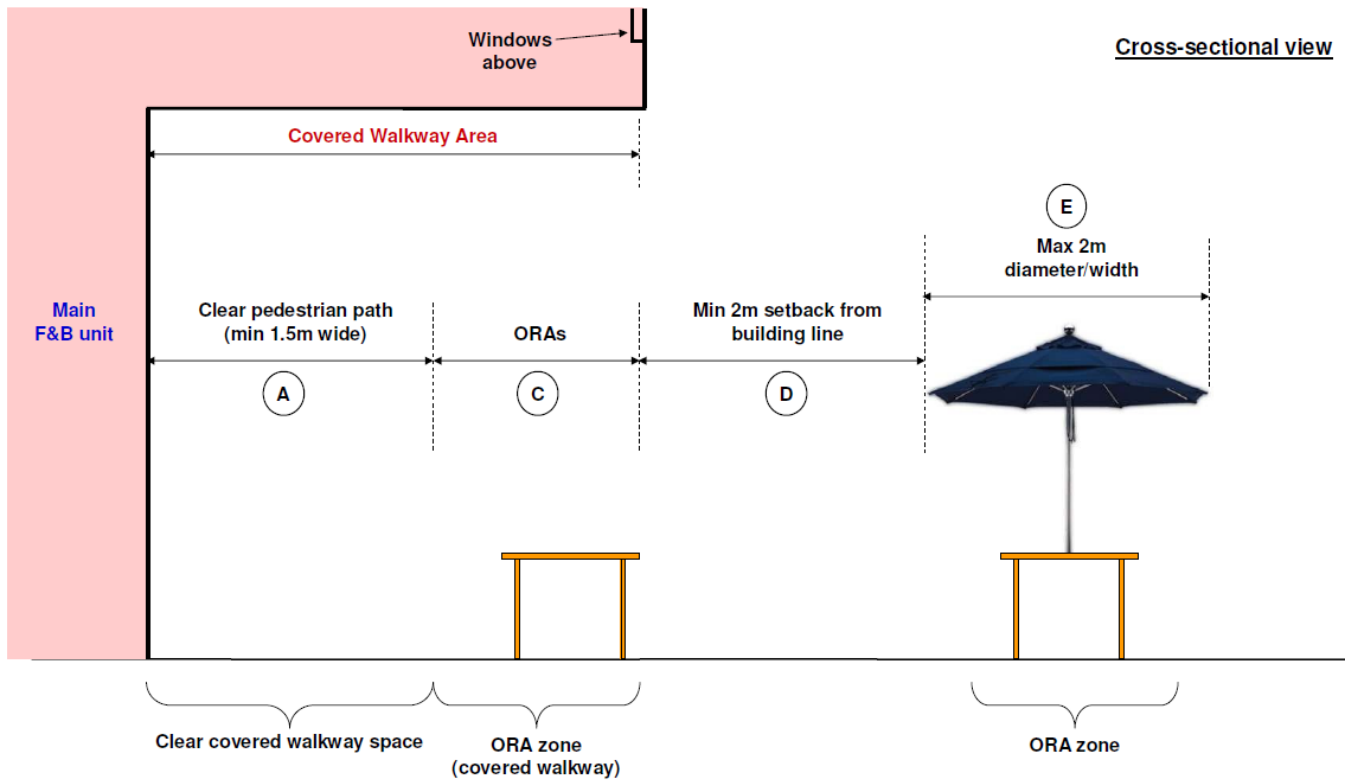


Fig 3a (above)

4. **ORA with canopy/awning**

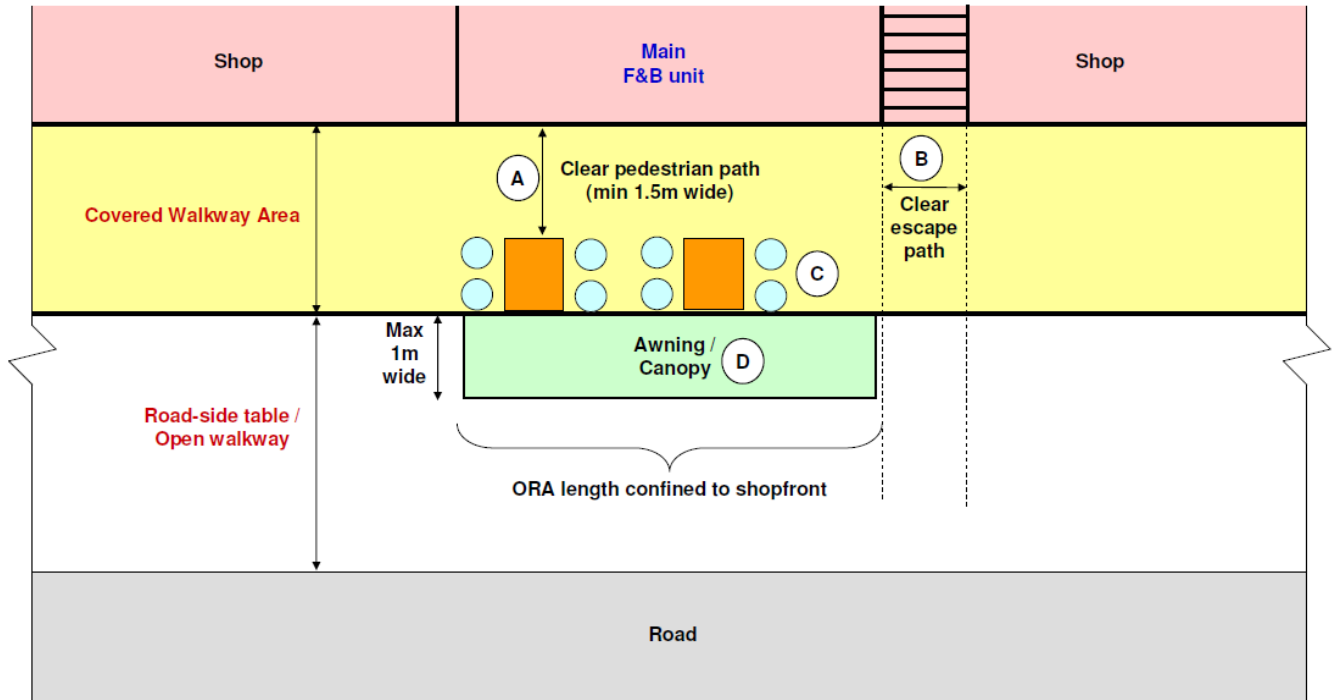


Fig 4 (above)

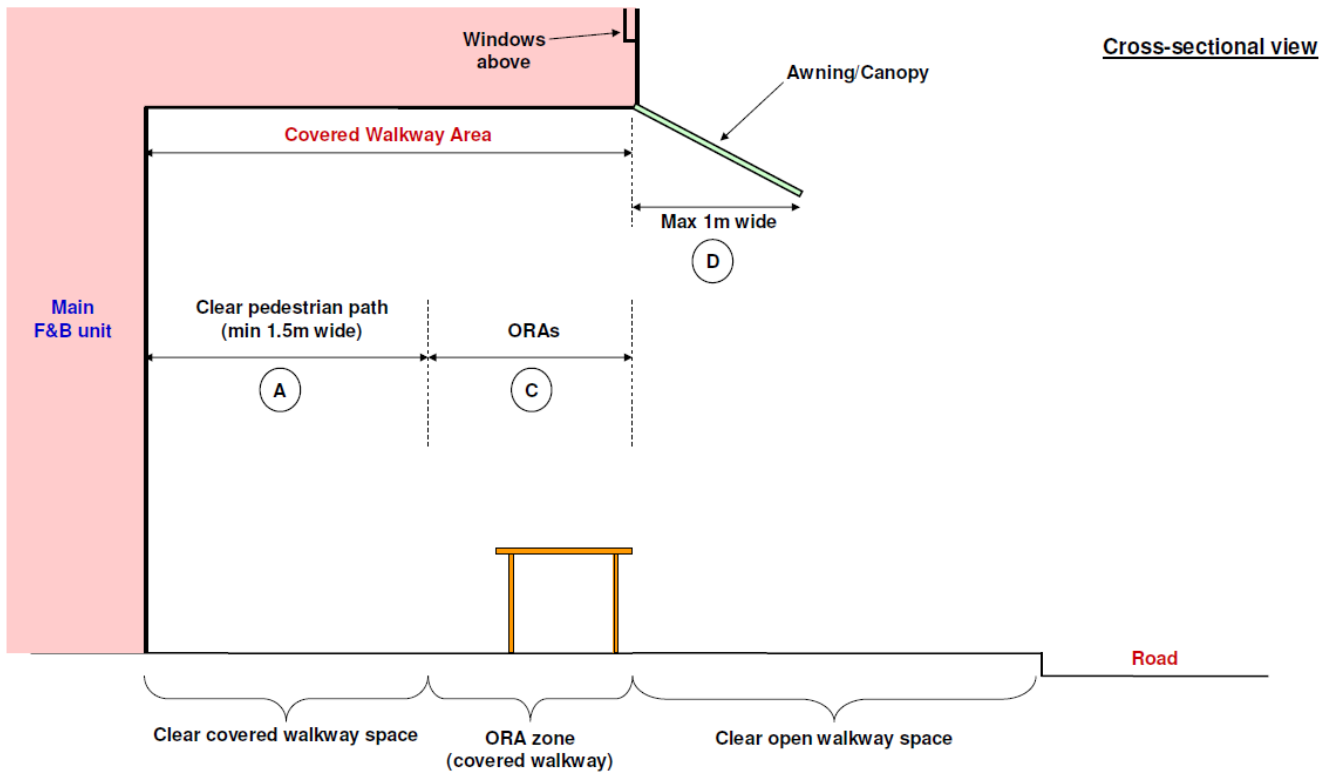


Fig 4a (above)