



TGD Part B Fire Safety Volume 2 Dwelling Houses

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Presentation Overview

- Review Rationale
- Review Process
- Legislation-Structure
- Section 0-Section 5
- Appendix A-Performance of Materials and Structures
- Appendix B-Fire Doors
- Appendix C-Measurement
- Appendix D-Loft Conversions
- Conclusion



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Rationale for the review of T.G.D. Part B Fire Safety

Current version of T.G.D. Part B published in 2006, following some amendments to the previous 1997 version.

The 2006 amendments - relatively limited in scope and much of the provisions of the 1997 version were retained

Main drivers for the review:

- Now 21 yrs. since a substantial review
- Developments in materials and methods of construction
- Changes in other T.G.D.
- -Update provisions – codes of practice
- Developments in international fire safety standards
- EU regulations



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The review Process





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Legislation/Structure;

- New two volume structure :
- Vol.1 Buildings other than dwellings - Vol 2 Dwelling houses
- Publication of TGD B Vol 2: new S.I. 57/2017 Building Regulations(Part B Amendment) Regulations 2017 .
- Allows changes in legislation to accommodate reference to means of warning and new definition of dwelling house
- New additional functional requirements of the building regulations B6-B10 arranged in Section 0 - Section 5 of TGD
- **Commencement date 1st July 2017**
- Existing TGD Part B 2006 : Existing functional requirements B1-B5 contained in Section 1 – Section 5 to continue address requirements for ” Buildings other than dwellings” for interim period.



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Section 0 Introduction

Removal of ref to CPD / CPR /Progress/Standards cited etc.-see Part D

0.1.5 New category of dwelling: Purpose Group 1(d) Community Dwellings

0.1.16 Independent schemes of certification-new reference

0.1.7 All definitions consolidated in this section -Additional definitions:

- Community dwelling house-
- Dwelling: *a house or flat, forming a separate unit of residential accommodation-*
- Dwelling House: *means a dwelling that is not a flat(as defined IS 497 of 1997)*
- Gallery: *is a floor or storey which consists of a raised area or platform which projects into the space of the room, providing extra floor area*
- 0.1.9-Ref to “Conversion of Traditional Buildings2-Historic Scotland
- 0.1.10 Operation , maintain and use - FDAS



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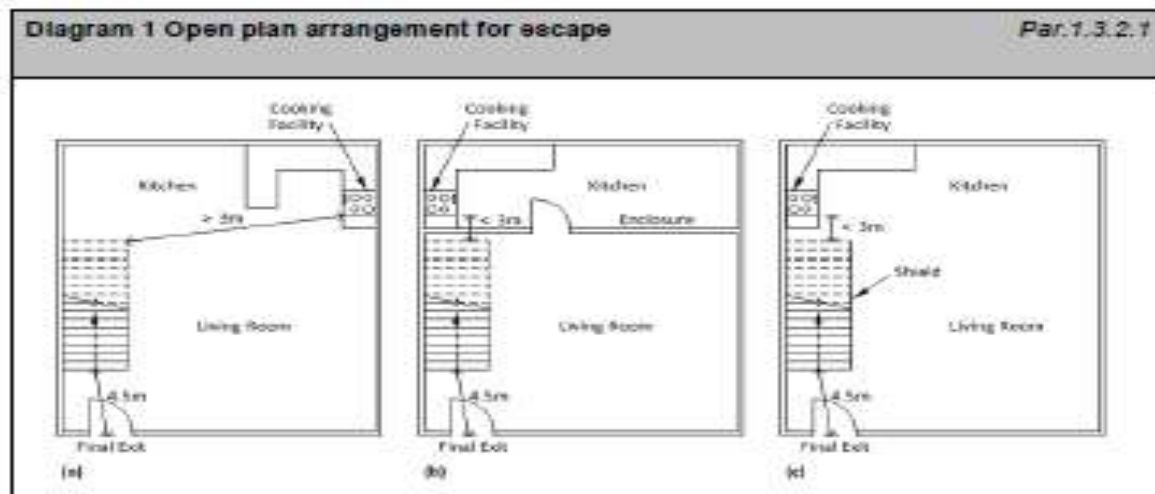
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Section 1 Means of warning and escape in case of fire

1.3.2.1 Open plan relaxation

Diagram 1- to clarify existing provisions





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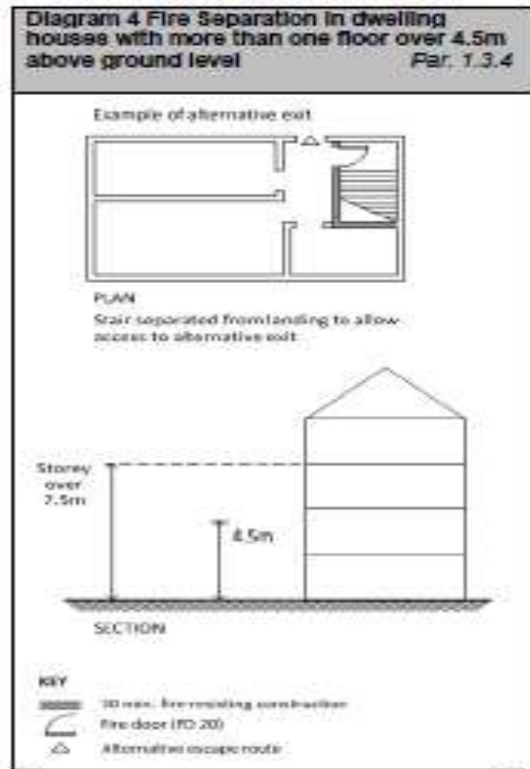


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Section 1 Means of warning and escape in case of fire(contd.)

Diagram 4 Fire separation in dwelling houses
With more than one floor 4.5.m above G.L.
To clarify exist provisions in 1.3.4.(c)





Section 1 Means of warning and escape in case of fire(contd.)

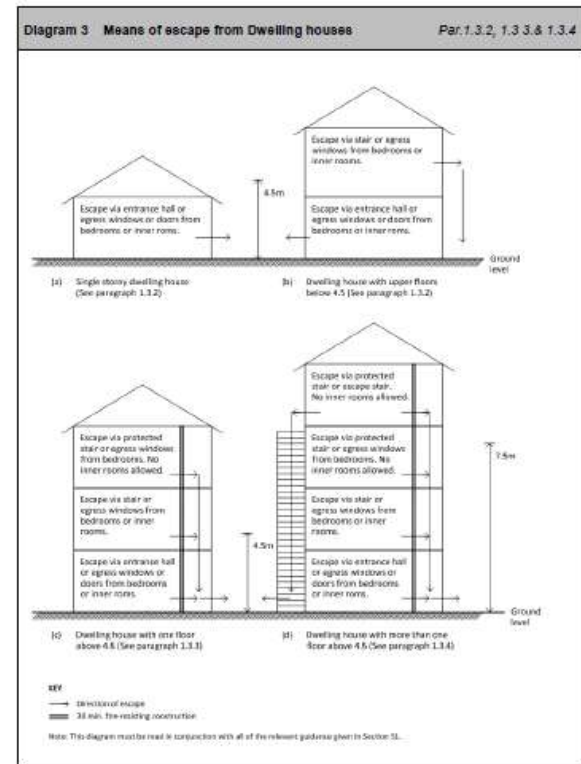
Diagram 3 Means of escape from dwelling house

1.3.4 requirement for sprinklers in(all)timber frame dwellings greater than 3 stories - BS 9251

1.3.6 F.D.A. S.

Designed for the protection of life to I.S. 3218 (currently BS 5839)

- L.D. 2 to PG1(a),1(b)
- L.D. 1 to PG1(d) +control switch





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Section 1 Means of warning and escape in case of fire(contd.)

1.3.6.4 Extensions

New Diagram 5

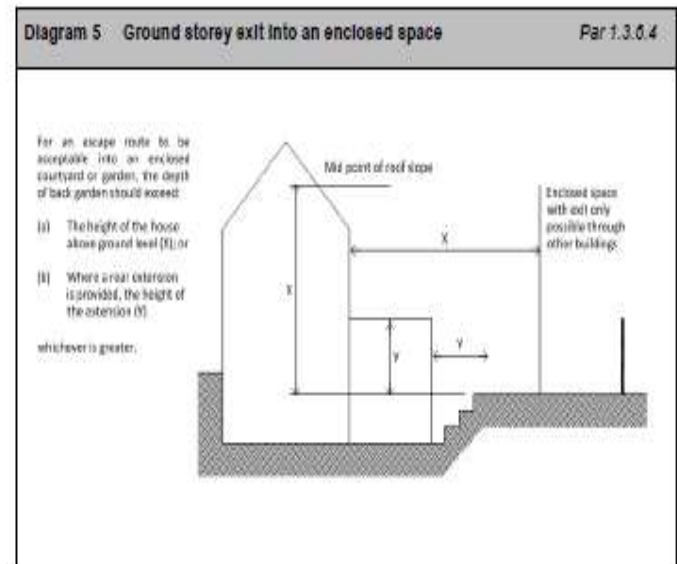
Enclosed rear gardens –place of safety

1.3.7.1 windows for escape or rescue

(b)Simplified wording only reference egress requirement: ref to 800mm cill height removed

(c)Reference to limits of application of Part K(1400mm)

1.3.9.7 Final exits...should be provided with simple fastenings (thumb latches or other readily openable mechanism) which can be operated from the escape side without the use of a key.





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Section 1 Means of warning and escape in case of fire(contd.)

1.3.7 Windows for escape or rescue

Remove angled approach

1.3.7 2 Replacement windows:

“Should meet....” replaces “*recommended*”

1.3.9.3 Ducts

New provisions for dwellings reference to BS 9991 – protection of escape route (stairs enclosure)only

1.3.9.6 Professional rooms

New Provision of linked fire alarm – emergency light(s) – directional signage
(Note 1: Table 0.1 does not include PG 1(d))



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Section 1 Means of warning and escape in case of fire(cont.)

1.3.9.9 Galleries

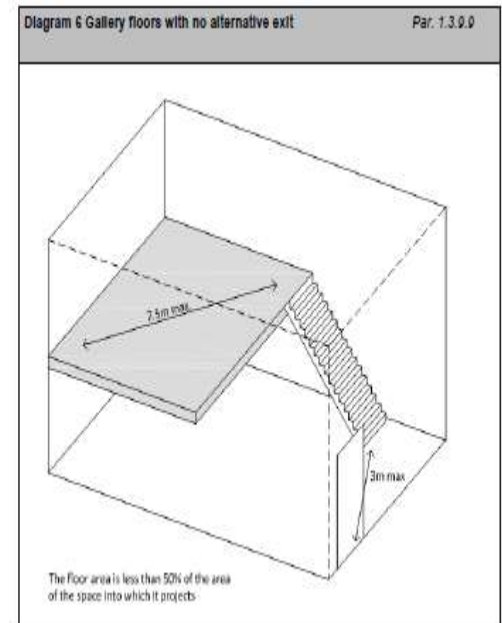
Treated as a storey to comply to 1.3.2, 1.3.3, 1.3.4

Requires fire resistance to floor

Second means of escape (window or door)

Gallery designated only where:

- It is not designed as a sleeping area
- Does not project into more than 50% of room
- 3m travel distance to door in room
- 7.5 m from of stairs head to any point on gallery
- Cooking facilities either:
 - Not less than 3m from stair(see dig 1)
 - Does not prejudice escape from gallery





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Section 1 Means of warning and escape in case of fire(contd.)

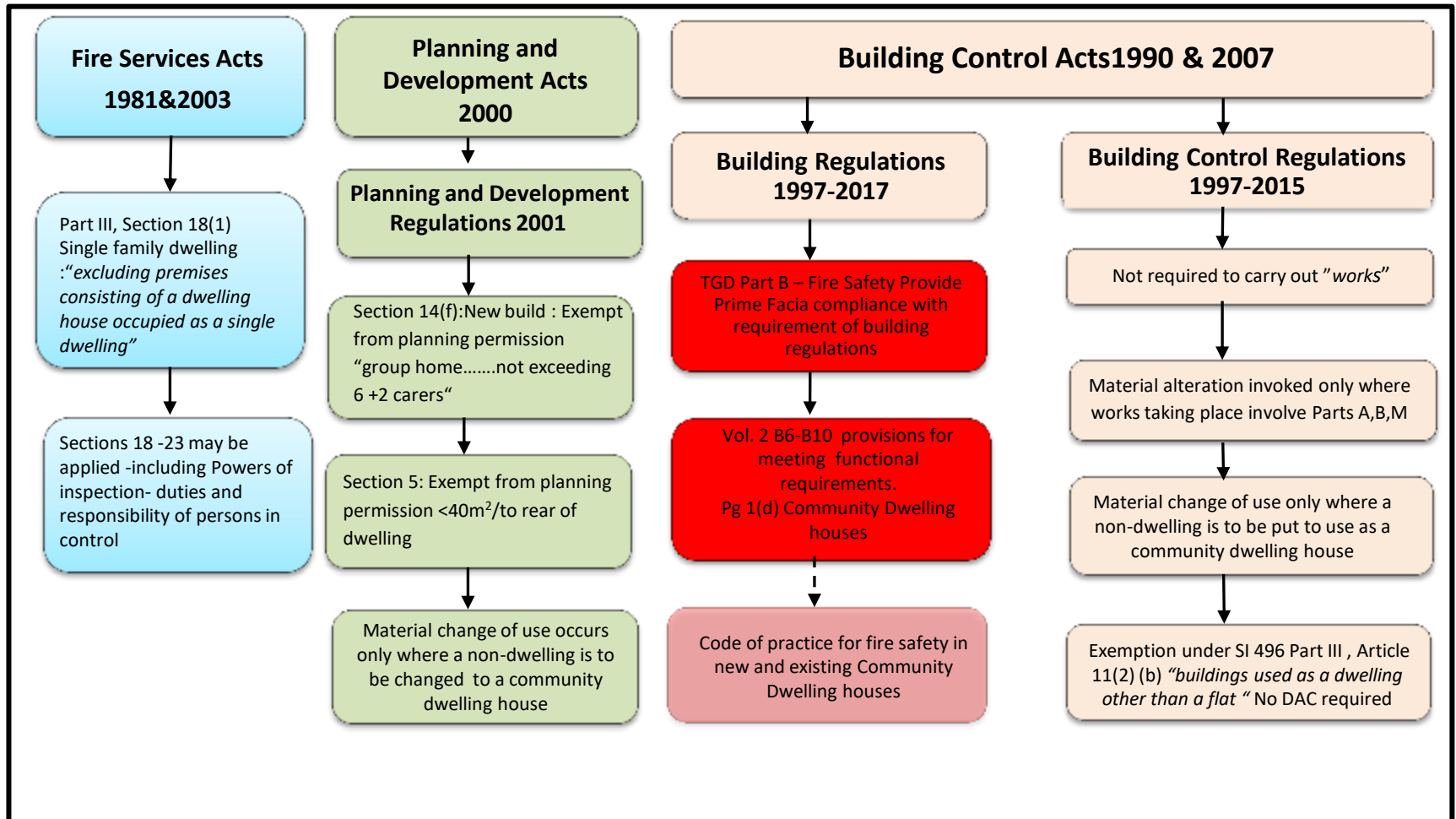
1.3.5 Community Dwelling Houses P.G. 1(d)

“A Dwelling house with a maximum of 8 bedrooms which may have no more than one storey, the floor level of which is more than 4.5m above ground level occupied as a group home, under the management of a statutory or voluntary organization providing supported living and residential services.”

- Height 3 stories,
- No basements
- 30min. fire resistance to corridors/stairs enclosure regardless of no. of storeys.
- Free swing doors
- Emergency Illuminaires
- Max. eight bedrooms
- Reference to C.O.P. – management-risk assessment

1.3.6 LD1 FDAS to I.S. 3218 + control switch

- Increased coverage
- Bedrooms+ attics+ other spaces





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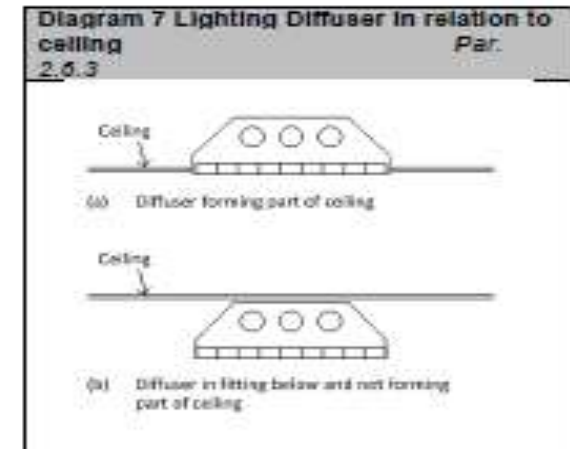


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Section 2 Internal Fire Spread (Linings)

2.6.3 Diagram 7 –Clarification on existing provisions with respect to light fittings attached to a ceiling





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Section 3 Internal Fire Spread (Structure)

3.5.3 Limits to Compartment sizes

Clarification on extent of compartmentation required in dwelling houses.

3.5.4.3 exception to requirement for non combustible separating walls only allowed in T.F. construction to IS 440

3.5.4.6 Diagram 10

Junction of separating wall and roof

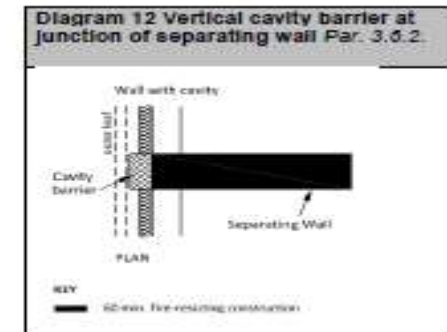
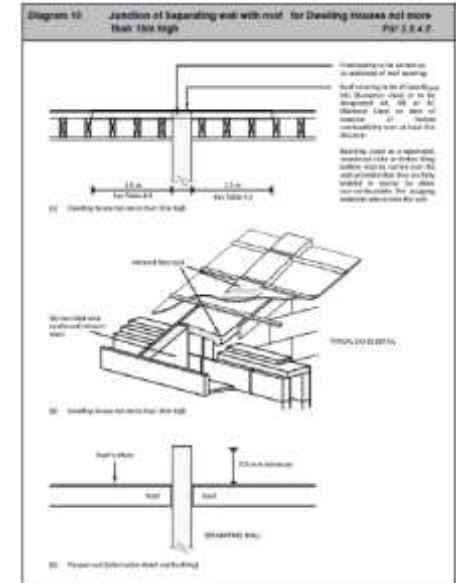
3.6.2 Provision of cavity barriers

Deletion of Dig. 17

Clarification of requirements

Diagram 12 Vertical cavity barrier at junction of separating wall

3.7.8. Highlight Reference to ASFP publications





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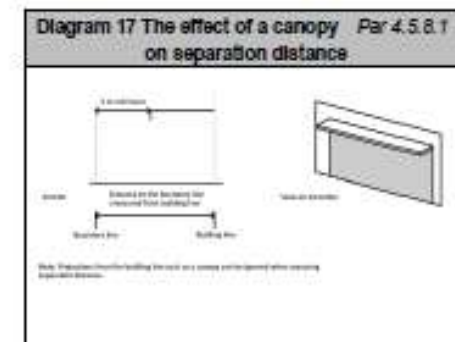
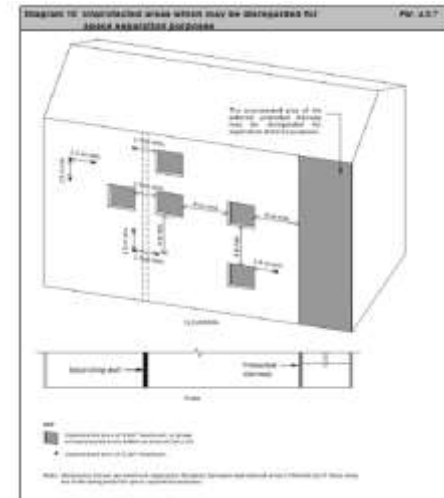
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Section 4 External Fire Spread

4.5.7 Diagram 16 Unprotected areas-revised diagram

4.5.8.1 Diagram 17 New diagram and requirement on the effect of a Canopy on separation distance





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Section 5 Access and facilities for the Fire Service

5.4.2 Provision of Vehicle access-45m to principal entrance

5.4.4 Design of access roads within site of dwelling house

Table 5.1 Note: includes reference to a hammerhead and “*Recommendations for site development works for housing areas*” 1998

5.4.5.1 Photovoltaic Panels –provision for isolation – ref ET101 requirements



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Appendix A Performance of Materials and Structures

- A 21 Structural fire design- additional Reference to Eurocodes and Fire Parts of Structural Eurocodes
- Application of EU Test methods-design to Eurocodes
- Application BS 476-existing buildings-non structural elements of new buildings.



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Appendix B Fire Doors

B2 -Free swing self closing device allowed in P.G.1(d)

Appendix C Methods of Measurement

Diagrams upgraded



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Appendix D Loft Conversions

- Applies to existing two storey dwelling
- Only to Conversions: <50m² or contain more than two habitable rooms
- Larger loft conversions in to comply with provisions in 1.3.2 ,1.3.3
- D 2.2 New stairway in fire resist const. extended to main stairway enclosure
- D 2.3 Single fire door leaf may be allowed(certified)
- D 2.5 Floor in Domestic loft conversions: modified 30min. allowed in exist and new
- D3 provisions moved from “Section 3 Fire resistance of timber floors “
- D5 FDAS – radio interconnected alarms+ 10 year battery permitted
- D6 External fire spread – note limitations on unprotected areas in Section 4 External fire spread.



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Thank you

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