



Template for comments / observations returned during the consultation				Date:	Document: Amendment to the Building Regulations, Part B (Fire Safety)	
Name of Organisation / Respondent	Section (e.g. 1.0, 2.0, etc)	Subsection (e.g. 1.1, 1.2, etc)	Paragraph / Table No. or Diagram No. (e.g. Interpretation / Section 2.1.2.6 / Appendix B.5.1.1 / Diagram 56)	Type of comment G = General E = Editorial T = Technical	Comment / Observation	Proposed Change (if any)
Construction Industry Federation	TGD B	All	All	G	The applicability of these new regulations has been assessed as minimal in terms of the quantum of planning applications that they will affect in the future and the potential cost of the physical interventions being proposed. These would appear to have been significantly underestimated when there is a review of Sustainable and Compact Settlement Guidelines underway which may lead to the granting of significantly more mid-rise apartment developments where the top floor is greater than 30m from the adjacent ground level. Furthermore a comprehensive evidence based rationale should be undertaken to outline the specific reasons why certain technical proposals are being suggested together with the completion of a systematic Cost Benefit Analysis that statistically assesses the proposals against a risk based actuarial approach.	a comprehensive evidence based rationale should be undertaken to outline the specific reasons why certain technical proposals are being suggested together with the completion of a systematic Cost Benefit Analysis that statistically assesses the proposals against a risk based actuarial approach.
Construction Industry Federation	Draft building regulations	Page 2 3 (a) (iii)	Transition Arrangements	T	The transition period in respect of fire safety certificate applications should apply to applications LODGED before 31 December 2023 rather than those GRANTED by this date. This approach would be consistent with sub section (a)(i) where it applies to planning applications LODGED by year end 2023.	(iii) a fire safety certificate or a disability access certificate under the Building Control Regulations (S.I. No. 496 of 1997), in respect of the works or buildings, has been LODGED on or before 31 December 2023, and
Construction Industry Federation	Draft building regulations	Page 2 3 (a) (iii)	Transition Arrangements	T	The transition period in respect of fire safety certificate applications should apply to applications LODGED before 31 December 2023 rather than those GRANTED by this date. This approach would be consistent with sub section (a)(i) where it applies to planning applications LODGED by year end 2023.	(iii) a fire safety certificate or a disability access certificate under the Building Control Regulations (S.I. No. 496 of 1997), in respect of the works or buildings, has been LODGED on or before 31 December 2023, and
Construction Industry Federation	Draft building regulations	Page 2 3 (a) (iii)	Transition Arrangements	T	FSC applications can take 2-6 months to be processed by the Building Control Authorities so applying a cut off granted date of year end 2023 is not giving industry and BCAs sufficient time to prepare, submit, assess and grant by that time.	(iii) a fire safety certificate or a disability access certificate under the Building Control Regulations (S.I. No. 496 of 1997), in respect of the works or buildings, has been LODGED on or before 31 December 2023, and
Construction Industry Federation	TGD B transition arrangements	Page 4	Transition Arrangements	T	Due to the ongoing delay in the processing of planning applications, practicality demands that there is greater certainty so that the design standards being applied at pre-planning stage can be relied upon at the later commencement stage.	The date for application of the proposed regulations should be for works that commence, or a change of use is applied for on or after 1st January 2026. The date for application of the proposed regulations should also allow for the structure to be completed up until 31st December 2029; where planning applications have been made prior to 31st December 2025; and where a Fire Certificate or Disability Access Certificate has been applied for before 31st December 2025.
Construction Industry Federation	TGD B transition arrangements	Page 4	Transition Arrangements	T	The transition period in respect of fire safety certificate applications should apply to applications LODGED before 31 December 2023 rather than those GRANTED by this date. This approach would be consistent with sub section (a) where it applies to planning applications LODGED by year end. The term "Substantial works" has not been defined and it should be omitted, or defined.	(d) a fire safety certificate under the Building Control Regulations, 1997 has been LODGED on or before [DATE], and substantial work (provide definition) has been completed by [DATE].
Construction Industry Federation	TGD B transition arrangements	Page 4	Transition Arrangements	T	FSC applications can take 2-6 months to be processed by the Building Control Authorities so applying a cut off granted date of year end 2023 is not giving industry & BCAs sufficient time to prepare, submit, assess and grant by that time. The term "Substantial works" has not been defined and should be omitted or defined.	(d) a fire safety certificate under the Building Control Regulations, 1997 has been LODGED on or before [DATE], and substantial work (provide definition) has been completed by [DATE].
Construction Industry Federation	Draft building regulations	Page 4 3 (a)	Definitions	T	Limiting storage low hazard passenger vehicle or light goods vehicles to 2500kg gross mass for car parks does not match the figure of 3500kg mentioned in TGD B. Large SUVs such as Range Rovers are listed at 2700kg and thus exceed 2500kg.	Amend the figure from 2500kg to 3500kg
Construction Industry Federation	Draft building regulations	Page 9 6	New regulation B12	T	"Active systems" are not defined.	As this will become a statutory requirement a definition for active systems should be provided
Construction Industry Federation	TGD B		0.1.2	T	There is currently no restriction in TGDB 2020 on the use of the guidance contained therein in respect of buildings exceeding 60m in height and hospitals exceeding 30m in height. It is further noted that there is no height restriction in the various codes referenced in TGDB 2020 including in the BS5588 suite of codes or HTM 05-02 in the case of hospitals. These new restrictions will result in total uncertainty in relation to the design of buildings exceeding these height thresholds for which there will be no guidance available.	Remove the scope/height limits in 0.1.2
Construction Industry Federation	TGD B Section 0		0.9 All	T	The draft building regulations stipulate that only information on active systems be provided. There is no mention of passive systems.	Remove the reference to passive systems

Construction Industry Federation	TGD B Section 0	0.2	Tall or complex buildings	T	BS 9999 and BS 9991 have been relegated to Appendix H by way of a circular reference that while these alternative design documents may be used, the requirements of TGD B must also be satisfied. How does a designer apply an alternative approach while still applying TGD B? This is contradictory and does not assist either the designer or any Building Control Authority faced with assessing the design. Additionally, this is legally contradictory with legislation because TGD B is a guidance document and not a prescriptive or "minimum performance" standard so should not be quoted as such.	For the design of fire safety of buildings using any document other than this document, a non-exhaustive list of useful references are given in Appendix H. DELETE In utilising any alternative document, code of practice or any other method to satisfy the requirements of Part B of the Second Schedule to the Building Regulations, the minimum performance levels of fire safety as set out in this document should be achieved AND ADD from TGD B 2020 para 0.1.4 "The use of alternative design solutions, standards, systems or methods of fire protection to those outlined in this document are acceptable, provided the level of fire safety achieved is adequate to satisfy the requirements of the Building Regulations. "
Construction Industry Federation	TGD B Section 0	0.2	Tall or complex buildings	T	BS 9999 superseded BS 5588 Part 11 which was withdrawn as a BS standard in 2008, has been routinely used and approved as the design basis for office buildings since its introduction in 2008 and in particular since the issue of Department Circular BC 5/2011 - which has been accepted by designers and BCAs as endorsing the use of BS 9999. It is noted that the guidance in BS 9999 produces considerably more economic designs for office buildings than the guidance in the proposed Draft TGDB 2023 which of necessity is broad brush and, for instance, treats retail occupancies as identical to office buildings in terms of travel distance even though it is self evident that pre-movement times for office buildings are considerably lower than for retail premises. Also the requirement in Clause 1.5.5.2.1 to not discount stairs in 2-stair buildings and in buildings with floors more than 20m high is further compounding the cost implication for office buildings in particular and for shop buildings i.e. current design practice does not discount lobbied stairs in office or retail buildings.	For warehouse and office buildings in particular the proposals in TGD B 2023 should be amended to align with BS 9999:2017 in relation to requirement B1 modified as necessary to reflect Irish system design codes/standards or alternatively BS 9999:2017 should be listed as a deemed to satisfy code in relation to requirement B1 in Section 1.2 of the TGDB 2023 and the subsequent sections modified accordingly.
Construction Industry Federation	TGD B Section 0	0.5 c	Purpose Groups	T	There is no justification in requiring a shop storage room to be a separate compartment when it is more than half the total area of the shop when the total shop floor area itself is not quantified. The goods being stored in the store room will be the same as those on display in the retail area.	Omit sub section (c) a storage area in a shop if the area of storage is more than one half of the total floor area of the shop;
Construction Industry Federation	TGD B Section 0	0.5 d	Purpose Groups	T	The reduction in threshold from 25% to 20% for ancillary accommodation in storage buildings has not been justified	Retain the current 25% threshold
Construction Industry Federation	TGD B Section 0	0.5	Table 1	T	An opportunity has been missed to clarify the purpose group to which some consultancies such as Doctor, Physiotherapist or Dentist apply where the premises is visited by the members of the public with or without appointment.	Expand the description of purpose group 4a to include Doctors (GP), Physiotherapists, Dentist and the like
Construction Industry Federation	TGD B Section 0	0.1.2	Scope of this guidance	T	There is currently no TGD B 2020 restriction on the use of the guidance in respect of buildings exceeding 60m in height. The proposed 60m height restrictions on the scope of TGD B creates total uncertainty in relation to the design of buildings exceeding the height thresholds for which there will be no guidance available. This will result in unacceptable and unnecessary uncertainty in regard to the design of such buildings for developers, designers and approving authorities.	Remove the scope/height limits in 0.1.2
Construction Industry Federation	TGD B Section 0	0.1.6 and 0.2	Application of the guidance; Tall and complex buildings	T	Section 0.1.4 of TGDB 2020 has been removed from the current draft. 0.1.4 of TGDB 2020 identifies that "There is no obligation to adopt any particular design solution contained herein. The use of alternative design solutions, standards, systems or methods of fire protection to those outlined in this document are acceptable, provided that the level of fire safety achieved is adequate to satisfy the requirements of the Building Regulations" . It is further noted that the DECLG (now the DHLG) have reiterated the above in their Circular Letter 05/11 dated May 2011 in which the use of BS9999 as an alternative design solution is endorsed by the Department. 0.1.6 of Draft TGDB 2023 is incorrect in suggesting that TGDB sets out "minimum level of provision to meet the requirements of Regulations B1 to B5 and B12" . It is equally incorrect in section 0.2 of the draft guidance to state that "minimum performance levels of fire safety as set out in this document should be achieved ". These clauses would serve to inhibit the use of alternative design solutions. By way of example, the Time-equivalent methodology, which is explicitly permitted in I.S. EN 1991-1-2: Eurocode 1: Actions on structures - Part 1-2 would effectively be disallowed if the "minimum performance levels" in TGDB had to be complied with. It is considered that these new proposed statements in the Draft TGDB serve to elevate the guidance document to that of prescriptive mandatory set of minimum provisions which it is not. This redrafting will have the effect of inhibiting alternative - and in many cases more efficient and appropriate - design solutions, and in so doing will also inhibit the ability of the construction sector in delivering reduced carbon emissions. These draft clauses are at odds with the purpose/scope of a guidance document and should be removed in favour of reinstatement of the Alternative Solutions text in 0.1.4 and 0.2 of TGDB 2020 strengthened to reflect the defacto status of BS9999 as an acceptable design document.	The content of Sections 0.1.4 and 0.2 of TGDB 2020 should be reintroduced and updated preferably to include specific reference to BS9999 as an acceptable alternative design code per Department Circular letter 05/11 and as per Clause 1.12 of Northern Ireland Technical Booklet E. The text in the current draft which states that the guidance constitutes minimum provisions and minimum performance requirements are legally incorrect should be removed
Construction Industry Federation	TGD B Section 0	0.1	Definitions	T	The definition of atrium does not align with industry practice which is to only consider a space a atrium if it breaches compartment floors. As worded any opening between two floors would be classified as a atrium. The definition is also at odds with TGD B (draft) section 1.4.3.5 and Diagram 5 plus section 3.8.3 which does discuss openings through compartment floors.	Change the wording to- Atrium: (plural atria): a space within a building, not necessarily vertically aligned, passing through one or more compartment structural floors (other than enclosed lift wells, enclosed escalator wells, building service ducts, and enclosed stairways which are not classified as atria).
Construction Industry Federation	TGD B Section 0	0.1	Definitions	T	The definition of a "Place of Special Fire Risk" does not address industry practice and the proposed removal of BB7 / BB100 for schools which assigns a special definition of compartmentation to school laboratories and the like, i.e. 30 minutes fire resistance.	For clarity, expand the definitions to reference section 3.4.4.7 (as applicable to schools, i.e. laboratories, technology rooms with open heat sources and stores for PE mats or chemicals).
Construction Industry Federation	TGD B Section 0	0.1	Definitions	T	The purpose and effect of the change to the definition of "pipe" to now include the movement of air, i.e. ventilation, is unclear and perhaps unintentional.	Review the purpose and effect of this definition change, particularly where ventilation pipes penetrate fire barriers.
Construction Industry Federation	TGD B Section 1	1.2.1	Hospitals	T	It is noted that the use of HTM05-02 in support of the guidance in the Draft TGDB 2023 is confined in the Draft to means of escape aspects of Chapters 3 and 5 of HTM 05-02. There are several other aspects of HTM05-02 that should also be included as deemed to satisfy. Hospitals are commonly designed with hospital streets and HTM05-02 incorporates specific fire fighting provisions for such typologies. HTM05-02 includes specific recommendations for roofs abutting higher sections of hospitals and includes specific recommendations for cavity barriers in operating departments for instance where the provision of cavity barriers could negatively impact on patient safety.	Those aspects of HTM05-02 which are particular to hospital fire safety design should be incorporated in Draft TGDB 2023 as deemed to satisfy provisions i.e. those aspects of HTM05-02 which relate to B3 , B4 and B5 and which are particular to hospital fire safety design.

Construction Industry Federation	TGD B Section 1	1.3.1	Occupant loading	T	The change in wording to remove "where this is known" from the text when compared the TGD B 1.0.10(a)(i) will have major implications for premises where the number of occupants is set and controlled by management	Revert to the wording in TGD B 2020 "room or storey - is the maximum number of persons it is designed to hold (where this is known) or the number calculated (using the occupancy load factors given in Table..."
Construction Industry Federation	TGD B Section 1	1.3.1	Occupant loading Table 2	T	Footnote 1 includes new text "from this table", i.e. "Where accommodation is not directly covered by the descriptions given, the most appropriate value, from this table, having regard to the buildings use should be applied.". This is a unnecessarily restrictive inclusion whereas it limits both designers and BCA to just the figures in this table. For example, retail units can have a wide range of occupancy loading depending on the type and size of store, i.e. large DIY stores or furniture stores will have very different occupancy load characteristics from small retail units, and this flexibility should be available.	Omit the text "from this table"
Construction Industry Federation	TGD B Section 1	1.3.1	Occupant loading Table 2	T	The fixed occupancy load factor for shops of 4sqm/person is not representative of the range of retail units in practice.	Revert to the wording previously used from BS5588-11 table 2, namely "Retail premises where the occupancy is known and the floor space factor can be ascertained by reference to similar premises: 2.0-10.0"
Construction Industry Federation	TGD B Section 1	1.3.2 (a)	Door width definition	T	The change in definition of door width to now omit the previously permitted inclusion of ironmongery of up to 100mm is a major and negative change. For example, doors with any hardware will now need to be wider than the corridor leading to them. This change is also in contradiction with the definition of measurement of corridors and stairs in sub-sections b & c which allow for 100mm handrail intrusions at waist height, which incidentally is at the same height that door ironmongery is usually installed. This draft change will further complicate the reuse or change of existing premises and could render non-compliant presently compliant layouts. The effect of this change on either existing or new buildings was not reflected in the Regulatory Impact Analysis.	Retain the TGD B 2020: 1.0.10(c)(i) definition of door width "a doorway is the clear width when the door or doors are open. Door hardware which does not intrude more than 100 mm into this width may be ignored."
Construction Industry Federation	TGD B Section 1	1.4.2.2	Travel Distance	t	It is noted that office buildings have been routinely designed in accordance with the guidance in BS9999 since the time that this code was published in 2008 and superseded BS5588 Part 11 (which was withdrawn as a BS standard at that time i.e. some 15 years ago)and in particular since the issuance of the Department's Circular Letter 05/2011 in May 2011. A sample survey by the main Fire Safety Consultants practicing in Ireland demonstrated that the majority of office developments in Ireland have been designed and approved to BS 9999 since the Department's circular letter endorsing its application. The 7% figure in Table 4 of Appendix 4 of the PRIA (which relates only to the period 2018-2021 and which applies to all buildings for which FSC applications were lodged) is a substantial underestimate of the extent of use of BS9999 in the design and approval of office buildings. It is noted that BS9999 recognises the reduced risk in office buildings compared to buildings with unfamiliar occupants such as shops, restaurants etc. and acknowledges the significantly lesser pre-movement times in office occupancies. Accordingly BS9999 permits travel distances well in excess of those quoted in Table 3 of the Draft TGDB 2023 i.e. BS9999 allows, in Table 11, travel distances of 22m in dead ends and 55m where alternatives are available compared to 18m/45m in the Draft TGDB 2023. Table 3 should therefore be altered in respect of offices to align with Table 11 of BS9999 as this reflects the defacto design figures which have been routinely applied and approved for office buildings over the past several years.	In Section 1.2 include a new sub-section referencing those sections of BS9999 which relate to means of escape as "deemed to satisfy" for offices
Construction Industry Federation	TGD B Section 1	1.5.4.2	Landings in residential (institutional) buildings PG2a	T	The dimension quoted only relates to a situation where mattress evacuation is the intended mode of evacuation. Other techniques using ski-pads, evacuation chairs etc. would not require landings of this size. In circumstances where mattress evacuation is the intended mode of evacuation alternative stairs geometries can be employed as per HTM 05-02 and HBN04-01	This clause should be amended to read as per the final paragraph of 1.3.4 of TGDB 2020 altered to cross reference to HTM05-02 for alternative landing geometries where mattress evacuation is the intended mode of evacuation.
Construction Industry Federation	TGD B Section 1	1.5.3	Single Escape Stairways	T	This proposal may not achieve the desirable outcome of providing protection in the event of a fire to occupants of an apartment building. In international comparisons, fire response strategies generally exhibit one of two principle options; namely 'stay put' or 'safely and quickly evacuate'. This proposed combination of prescribing compliance by means of both passive and active fire protection measures will lead to confusion. Occupants of buildings may be completely unaware of the particular technical provisions within a building where they are present and a fire occurs. This confusion puts occupants at risk and hinders the work of the fire rescue services.	We strongly recomend that further detailed technical consulatation takes place on this matter to determine the most appropriate option for Ireland. A decision can then be taken to pursue the most appropriate strategy for Irish residential units and to align the TGD with that in mind.
Construction Industry Federation	TGD B Section 1	1.5.4.2	Landings on stairs in purpose group 2a	T	The minimum width and depth now specified for a landing are predicated on mattress evacuation and do not take into account either alternative evacuation methods or the width of the stair leading to the landing.	The wording should be changed in line with TGD B 2020 that these dimensions are for when mattress evacuation is used. Also, a range of dimensions should be allowed as per Hospital Building Note (HBN) 00-04
Construction Industry Federation	TGD B Section 1	1.5.5.2.1(c)	Discounting of stairs with a storey more than 20 above ground level	T	The proposed modified requirement to discount a stairwell in a building more than 20m tall is at odds with design guidance in England, Wales, Scotland and Northern Ireland, thus placing Ireland at a competitive and cost disadvantage.	The restrictions on the avoidance of discounting in 1.5.5.2.1 should be removed.
Construction Industry Federation	TGD B Section 1	1.5.5.3 and 1.5.5.4	Totsl / simultaneous evacuation; Phased evacuation	T	For the same reasons set out in respect of clause 1.4.2.2 above, the widths required for office usages should align with those in BS9999	In Section 1.2 include a new sub-section referencing those sections of BS9999 which relate to means of escape as "deemed to satisfy" for offices or amend Table 8 and 9 to align with BS9999 for offices i.e. Risk Profile A2.
Construction Industry Federation	TGD B Section 1	1.6.2.3.3 and 1.6.2.3.5	Open plan flats with a travel distance of less than 9m; Opn plan flats with a travel distance of more than 9m located >4.5m above ground level	T	In the case of studio and small one bed open plan apartments to achieve 1.8m clearance distance to cooking appliances the cost impact is estimated to be €12,500 per unit to cater for the increased width/dimensions necessary. Analysis undertaken by BRE and previously submitted to DHLG as part of the public consultation process in 2019 (referred to as CRISP analyses) conservatively calculated that the required separation distance from the centre of the fire source - e.g. centre of hob ring - to the escape path should be 1.3m yielding a required clearance to the face of the hob of circa 1.1m i.e. considerably less than 1.8m. It is further noted that the Hong Kong <i>Code of Practice for Fire safety in Buildings 2015</i> - being one of the jurisdictions referenced in the PRIA and one which explicitly deals with open plan kitchens in apartments - prescribes a much reduced clearance distance of 0.6m in Clause C13.4A. Accordingly the 1.8m distance should be reduced to 1.1m - or at very most 1.5m.	Reduce the required separation distance from 1.8m to 1.1m to the face of the cooking appliance. This dimension to apply to studio apartments of less than 9m travel distance (i.e. clause 1.6.2.3.3) and to open-plan apartments (i.e. clause 1.6.2.3.5).
Construction Industry Federation	TGD B Section 1	1.6.6.3.1b	Buildings with enclosed corridor/lobby approach - General provisions	T	The new requirement for mechanical ventilation in buildings above 30m in height is excessive - natural smoke shafts ought also to be allowable in buildings of this height. It is noted that this requirement is not in the current TGDB 2020 and is not referenced in the PRIA.	Amend this clause to allows natural smoke vent shafts in buildings exceeding 30m in height.

Construction Industry Federation	TGD B Section 1	1.6.7.1	Need for a second stair in apartment buildings between 11-30m	T	The new requirement in Clause 5.5.4.1 for 2 stairs if the floor area exceeds 900sqm on floors 11-30m above ground to facilitate fire-fighting - is illogical given that each apartment is a separate fire compartment and therefore the likely maximum fire size which the fire service will have to contend with is a single apartment.	Remove the 900sqm requirement in clause 5.5.4.1 in the case of apartment buildings.
Construction Industry Federation	TGD B Section 1	1.6.8	Ancillary accomodation	T	Unroofed roof gardens/amenity areas are a common feature of apartment blocks and should be addressed in 1.6.8 and in Table 10.	Unroofed roof gardens/amenity areas are a common feature of apartment blocks and should be addressed in 1.6.8 and in Table 10 - it is suggested that the guidance in BS9991 be followed
Construction Industry Federation	TGD B Section 1	1.7.3.3	Widths of mall exits	T	The calculation of mall exits should also cater for unit occupant demand on the mall exit system.	The calculation of mall exits should also cater for unit occupant demand on the mall exit system.
Construction Industry Federation	TGD B Section 1	1.9.9.5	Lifts Serving Basements	T	Provision should be made to allow for lifts to serve a basement storey where the single escape stairway terminated at ground level is compartmentalised from the lift lobby and the lift opening does not impinge on the means of escape from that single stairway. The prohibition on lifts in single stair residential (apartment) buildings extending to basement level is unduly onerous, non-compliant with universal access for all (TGD M), BS 9991 and long established practice in Ireland to provide double lobby protection at basement level with the outer lobby provided with permanent 0.4sqm passive ventilation to the open air.	Amend clause 1.9.9.5 to permit residential lifts descend to basement level provided they have adequate smoke and fire protection at basement level, e.g. double lobby protection at basement level with the outer lobby provided with permanent 0.4sqm passive ventilation to the open air.
Construction Industry Federation	TGD B Section 2	2	Notice boards and display cases	T	With TGD B subsuming BB7/BB100 the TGD B section 2 is silent on the necessary controls for display cases and notice boards in classrooms and circulation areas.	Expand section 2 to reflect the controls required by BB100:5.2.2.1 & 3.1.6 in respect of notice boards
Construction Industry Federation	TGD B Section 2	2.2.1 Table 14	Variation and special provisions - walls	T	The proposed new requirement in Table 14 of Class B-s1,d0 for circulation areas in PG2a and 5b buildings sets requirements in relation to smoke production and flaming droplets which are not consistent with the scope of Regulation B2	Reclassify
Construction Industry Federation	TGD B Section 3	3.4.4	Compartment sizes	T	The new limit on high bay warehousing of 14,000 does not address those buildings which will exceed 14,000sqm and which are currently designed using BS 9999.	Provide clearer guidance for designers and BCAs for high bay warehousing exceeding 14,000sqm where internal compartmentation is not a option.
Construction Industry Federation	TGD B Section 3	3.4.4.5	Table 16 Shop compartment sizes	T	Regarding the proposal to reduce the maximum compartment size of unsprinklered single storey shop compartments by 50% (4000sqm to 2000sqm) or from 2800sqm to 2000sqm in the case of multi-storey shops. The Regulatory Impact Analysis [RIA] does not contain any cost/benefit analysis to support this proposal and will result in many single storey shops now having to be sprinkler protected. Whilst the reasoning given in the RIA is given to align with the UK ADB, this is not the case in a number of aspects, e.g. the ADB does not limit the size of sprinklered single storey shops whereas TDD B does place a limit of 8000sqm.	The proposals to reduce the compartment floor areas for shop in TGD B 2023 should be omitted unless supported by a proper Cost/benefit analysis and then reissued for public consultation.
Construction Industry Federation	TGD B Section 3	3.5.4	Restriction on combustible materials for compartment floors, e.g. Cross Laminated Timber (CLT)	T	The proposal to slightly increase the height limit where compartment floors may consist of combustible material from 10m to 11m rather than to entirely omit the restriction does not reflect the environmental benefits of CLT and timber based construction at a time when the green agenda is increasingly relevant and runs against government policy to reduce carbon emissions. Combustible materials in buildings with a top floor >30m, involving appropriate means of protection using a combination of active and/or passive solutions must be facilitated within the proposed revision to Part B. This scenario is being utilised successfully in other jurisdictions with similar BC systems and as such provision should be made to afford a technology and compliance solution to be put forward. Design, a golden thread of data including inspection, competent installation and certification will be key to support this proposal.	Explicit guidance, where supported by full scale fire tests/research, should be provided where the combustible construction is either sprinkler protected, encapsulated, partially encapsulated or not encapsulated.
Construction Industry Federation	TGD B Section 3	3.4.4.7	Provision of fire resisting walls	T	The guidance is unnecessarily narrow in that it only lists an number of limited areas of ancillary accommodation in schools, offices, shops and places of assembly whereas it omits reference to many areas of ancillary accommodation currently protected by reference to BS 5588-11 Table 11 or BS 9999 Table 29.	Provide comprehensive guidance for the structural fire protection of areas of ancillary accommodation by reference to BS 9999 Table 29. Guidance should include the form of construction, i.e. robust, solid, non-combustible etc.
Construction Industry Federation	TGD B Section 3	3.5.10	Junction of a Compartment Floor with an External Wall	T	The proposed prescriptive standard for an extension of the fire resisting compartmentation vertically, and in projection, perpendicular to the building will have an adverse affect on compliance with other Building Regulations and compliance standards. Introducing a vertical buffer zone of 900mm will severely impact the ability to maintain adequate natural light through window openings and comply with the recommendations in BRE Practice Note, BR 209: Site Layout Planning for daylight and sunlight. Introducing a horizontal projection of 500mm, thereby extending the compartment floor outwards from the face of the building will introduce the need for a physical weathering upstand at the projection/wall interface and therefore impinge on Part M, level access compliance requirements. The comment on the number of buildings that would have been affected by this propsoed change is irrelevant. A review of Sustainable and Compact Settlements Guidelines is underway and could potentially provide for a greater number of residential buildings with top floors >30m in urban areas. This may lead to a significantly greater volume of planning applications affcted by this new standard. Research undertaken on the effectiveness of spandrel panels in preventing the risk of vertical fire spread between floors has identified that the height of spandrel required to be effective would be entirely impractical i.e. would need to be of the order of a storey height. It was on this basis that spandrel panels are not a requirement in the UK Building Regulations/Guidance (i.e. spandrels are not a requirement in the England, Wales, Scottish or Northern Ireland building regulations). It is noted that spandrel panels were also not a requirement in TGDB1991, TGDB1997, TGDB2006 or TGDB2020.	a comprehensive evidence based rationale should be undertaken to outline the specific reasons why certain technical proposals are being suggested together with the completion of a systematic Cost Benefit Analysis that statistically assesses the proposals against a risk based actuarial approach.

Construction Industry Federation	TGD B Section 3	3.5.10	Spandrel panels or horizontal projection at compartment floors or sprinkler protection	T	<p>This entirely new blanket proposal is at odds with current design and construction in Ireland, the UK and Europe. The change will result in considerable cost increases and design changes, none of which have been properly justified or subject to a full cost benefit analysis. The "justification" in the Regulatory Impact Assessment for this change would appear to be cherry picked from guidance from countries in the middle east and far east (UAE, Hong Kong, Singapore, Australia, New Zealand) but completely fails to incorporate the design context and options available from these countries codes, rather the draft TGD B requirement is a blunt instrument without proper technical or cost benefit interrogation. For example, the UAE code (2018 edition) has a 1.5m spandrel panel requirement but this can be reduced or omitted when a tested and listed fire stopping system is used in the intended field of application. New Zealand and Australia both have qualified spandrel panel requirements and Singapore only requires spandrel panels in high rise apartment buildings and not at all in low/medium rise or any other category of use.</p> <p>The technical justification offered has not considered that engineering analysis has shown that for a spandrel panel to be effective at controlling fire spread between floors it would need to be at a height of 2.4-4.0m, which is entirely impractical .</p> <p>The suggestion that the spandrel panel can be provided at minimal cost is far from reality. For example, in the case of apartment blocks where units are stacked vertically for efficiency the 900mm spandrel panel will increase the height of each floor by circa 150mm with a corresponding cost increase of 3-5% for this issue alone, which is 2-3 times the figure quoted in the Preliminary Regulatory Impact Analysis for the totality of all changes to a block of apartments. At a time of rising house costs and a national housing crisis this ill-founded and avoidable increase in cost is act of national self harm.</p> <p>The suggestion that the spandrel panel can be easily provided from a technical perspective is incorrect. For example, it ignores the use of curtain walling or light weight construction which even in a two storey building with a compartment floor would effectively mandate sprinkler protection of the entire building, which is disproportionate and not justified. The statement is also misleading as it does not address how industry will have to comply with the requirement to provide a 60 minute (or greater) fire resistance from both sides when not using masonry construction. Even when using masonry construction in an external leaf, spanning wide window openings using steel relief angles will be prohibited because they cannot be fire protected. Similarly, the use of down stand shaft wall construction to provide a fire resisting zone would not be within the tested field of application for the product, which requires lateral restraint on all four edges.</p>	These requirements should be completely omitted until such time as a full and proper technical justification has been developed alongside a full and proper cost benefit analysis across a range of building and construction types. These should then be put back out for public consultation so that all stakeholders can fully assess the proposal and provide feedback.
Construction Industry Federation	TGD B Section 3	3.5.10	Spandrel panels or horizontal projection at compartment floors or sprinkler protection	T	<p>The statement in the Preliminary Regulatory Impact Statement that spandrel panels can be "<i>achieved through current construction methods such as twin-leaf masonry, timber frame external walls, and light gauge steel external wall systems with a fire performance from each side</i> ." is misleading as the later types of construction are typically only tested for fire resistance from one side and when required from both sides then the specification needs to be changed, if it can, e.g. light weight constriction with a rendered insulation finish externally is not fire resisting from the outside. The BS 8414 full scale test for external walls is used to determine the ability of the external wall to withstand fire spread on the external wall, it does not provide a REI fire resistance categorization of the wall construction from out to in.</p>	These requirements should be completely omitted until such time as a full and proper technical justification has been developed alongside a full and proper cost benefit analysis across a range of building and construction types. These should then be put back out for public consultation so that all stakeholders can fully assess the proposal and provide feedback.
Construction Industry Federation	TGD B Section 3	3.5.11	Junction of a Compartment wall with an External Wall		<p>The proposed prescriptive standard for an extension of the fire resisting compartmentation horizontally will have an adverse affect on compliance with other Building Regulations and compliance standards. Introducing a horizontal buffer zone of 500mm will severely impact the ability to maintain adequate natural light through window openings and comply with the recommendations in BRE Practice Note, BR 209: Site Layout Planning for daylight and sunlight.</p>	These requirements should be completely omitted until such time as a full and proper technical justification has been developed alongside a full and proper cost benefit analysis across a range of building and construction types. These should then be put back out for public consultation so that all stakeholders can fully assess the proposal and provide feedback.
Construction Industry Federation	TGD B Section 3	3.5.11.2	Fire rated external walls at compartment boundaries	T	<p>In the context of Purpose Group 2 (hospitals, nursing homes, etc) the requirement for a 1.8m wide fire resisting zone at compartment wall junctions is considerably larger than the 1.0m required by the HTM 05-02 for hospitals. We are unaware of any technical justification for this increase.</p>	Reduce the requirement to 1m in line with current guidance
Construction Industry Federation	TGS B Section 3	3.5.12	Opposing elevations of the same building	T	<p>The wording in this section when compared to the TGD B 2020 edition has seen the addition of the word "midway" in the guidance, i.e. "<i>External fire-spread calculations based on a notional boundary midway between opposing elevations should be carried out in accordance with Section 4</i> ." With non symmetrical elevations it is usual to adjust the position of the notional boundary away from the mid point and closer to the elevation with less unprotected area such that it is shown that the radiant heat falling on the notional boundary is acceptable in both directions.</p>	Revert to the TGD B 2020 guidance by removing the word "midway" from the guidance
Construction Industry Federation	TGD B Section 3	3.6.2	Masonry external walls	T	<p>The proposed move away from providing cavity closers around external wall openings (TGD B 2020: diagram 17) in favour of cavity barriers at compartment floor and wall junctions does not address any future remodelling of a building whereby a previous non compartment wall or floor becomes one. For example, a multi-storey building initially designed for a single occupier later being sub-divided to provide a different tenant on each floor. The proposed guidance would effectively require the demolition and reconstruction of the external walls to add these cavity barriers. While the reasoning behind this change was given as the risk of occupants putting new openings into a external wall and by so doing undermining the fire strategy, these kind of changes are only likely in private housing covered by TGD B Volume 2 which already calls for cavity barriers at compartment walls. This risk is far less in other kinds of buildings where it is also more likely that compartment changes would occur over time and can be addressed by closing around openings with far less disruption and cost.</p>	Retain the design option of closing around openings in masonry walls (TGD B 2020 Diagram 17) but replace the "cavity closer" which has no performance specification with "cavity barrier" which does have a performance specification (REI 0/30/15).
Construction Industry Federation	TGD B Section 3	3.8.3	Buildings containing a atrium	T	<p>The guidance in 3.8.3.2 to 3.8.3.6 is only applicable to openings between compartment floors. The guidance in 3.8.3 is silent on provisions where the floors are not compartment floors. The proposal that the glazing forming the smoke reservoir at the top of the atrium be EI30 rated exceeds the current requirements of BS5588 Part 7, exceeds the requirements of BS9999 which replaced BS5588 Part 7 and exceeds current practice which is to employ smoke retarding construction. The PRIA offers no technical justification for the EI rating which it is noted is a significant cost increase on current practice and also inhibits the type/design of glazing which can be employed.</p>	Provide clarity in section 3.8.3 to direct non-compartment floor penetrations to section 1.4.3.5. EI30 rating is unjustified and should to be replaced with a requirement for smoke retarding construction - to include laminated or toughened glass - per BS9999. Definition to be added re "smoke retarding construction" per BS9999.

Construction Industry Federation	TGD B Section 4	4.3.3.3(n)	Laminated glass	T	Sub section (n) lists laminated glass as an exception. It is unclear if this includes the use of laminated glass in balconies.	Confirm that laminated glass used in balconies are excluded from the provisions of paragraph 4.3.3.2. "(n) Window frames and glass (including laminated glass used in windows, doors and balconies).
Construction Industry Federation	TGD B Section 4	4.3.3.2	Buildings with a topmost floor height of more than 15m	T	The references to s1, and d0 which relate to smoke production and flaming droplets would appear to exceed the scope of the proposed revised Regulation B4	Either Regulation B4 requires altering to cater for requirements in relation to smoke production and flaming droplets or Table 20 requires amending.
Construction Industry Federation	TGD B Section 4	4.3.3.2	Buildings with a topmost floor height of more than 15m	T	In Table 20 the term "external attachments" requires definition.	The status/requirements (if any) attaching to laminated glass balustrading on balconies or as barriers at windows requires clarification
Construction Industry Federation	TGD B Section 4	4.3.3.3	Materials excluded from the provisions	T	The status/requirements (if any) attaching to laminated glass balustrading on balconies or as balustrading at windows requires clarification	The status/requirements (if any) attaching to laminated glass balustrading on balconies or as barriers at windows requires clarification
Construction Industry Federation	TGD B Section 4	4.4.7	Buildings containing atria	T	It is common current design practice to control the risk of vertical fire spread between floors by appropriately designed automatic heat venting in the atrium as opposed to glazed screens. An option catering for same should be included in 4.4.7	It is common current design practice to control the risk of vertical fire spread between floors by appropriately designed automatic heat venting in the atrium as opposed to glazed screens. An option catering for same should be included in 4.4.7
Construction Industry Federation	TGD B Section 4	4.3.4	Portal frames	T	The draft TGD B guidance has omitted the footnotes in the current TGD B 2020: 4.1.3 whereby portal frame foundations do not need to be designed to resist overturning if the building is sprinkler protected. Whilst the SCI publication also permits this retaining the text in TGD B would assist with clarity.	Retain the footnote from TGD B 2020:4.1.3
Construction Industry Federation	TGD B Section 4	4.5	Roof coverings	T	It is noted that there is no proposals in the Draft for fire rated roofs adjacent to non fire rated external walls of stairs nor is there any requirement for fire rated roofs adjacent upper floor facades in hospitals per HTM 05-02 - DHLG to clarify if this is oversight	clarify if this is oversight
Construction Industry Federation	TGD B Section 5	5.5.4.1 & 5.5.6	Dry risers	T	In the context of apartment buildings there is no reason why the dry riser and fire fighting shaft requirement should be based on a 900sqm floor area threshold when each apartment is a separate compartment and thus the likely maximum fire size will be the apartment itself .	Remove the 900sqm threshold for dry risers/fire fighting shafts in the case of apartments and instead use a maximum distance to the dry riser landing valve.
Construction Industry Federation	TGD B Section 5	5.5.6.3d	Construction of fire fighting shafts	T	In terms of BCAR compliance item 5.5.6.3 needs to be supported by a compliance/test requirement or be removed. A vague performance requirement as proposed is inconsistent with BCAR obligations. It shall be clarified that 5.5.6.3e refers to construction rather than linings or floor finishes	In terms of BCAR compliance item 5.5.6.3d needs to be supported by a compliance/test requirement or be removed. A vague performance requirement as proposed is inconsistent with BCAR obligations.
Construction Industry Federation	TGD B Section 5	5.5.6.4e	Firefighting Lobbies	T	The requirement for mechanical ventilation above 30m is unduly onerous and out of line with 27.1.1c of BS9999:2107 (which superseded BS5588 Part 5) and 15.8 of UKASDB England both of which allows natural vent shafts also above 30m	Amend to allow use of natural smoke vent shafts above 30m
Construction Industry Federation	TGD B Section 6	6.5	Basement car parks	T	The draft TGD B has omitted the sentence from TGD B 2020 that basement car parks are not normally required to be sprinkler protected. Clarification is required that the intent is not to mandate sprinkler protection in basement car parks provided with mechanical ventilation or natural ventilation. If the intent is to introduce sprinkler protection to basement car parks then this should be subject to technical justification and a full cost benefit analysis as part of a revised Regulatory Impact Analysis reissued for public consultation.	Add back to this section the text from TGD B 2020: 5.4.3 "Basement car parks are not normally expected to be fitted with sprinklers."
Construction Industry Federation	TGD B Section 6	6.6.2.3(a)	Mechanical smoke ventilation	T	Mechanical smoke shafts are tested and validated proprietary systems which do not necessarily conform to the minimum dimension sizes required by 6.6.2.2 (a) and (d) of 1.5sqm cross sectional shaft and 1sqm inlet area. For example the Colt mechanical shaft has a tested and validated typical cross section of 0.6sqm with fan sets to match. Similarly the size of the proprietary damper from lobby to shaft is not 1sqm. Imposing a minimum cross sectional area of 1.5sqm and opening of 1sqm will render it unfeasible to use these proprietary systems as the sizes will be outside their valid field of application. Simply retesting these proprietary systems is not a answer either as there would be no cost saving or space reduction in their use.	Amend 6.6.2.3(a) to remove reference to 6.6.2.2 (a) and (d).
Construction Industry Federation	TGD B Section 7	7.1.4.1.1	Offices	T	The inclusion of non-lobbied provisions for change of use to offices is welcome. There are 2 issues which arise: (1) In Item 7.1.4.1.1a if should be clarified that the 4 storeys relates to floors above ground level and that the building can include a basement/lower ground floor storey and (2) In item (f) the stairs should be allowed to extend to basement level (as is routinely the case in Georgian houses, for instance) subject to lobby protection being provided at basement level. It is noted that such basements are typically lower ground floors as they have windows to the outside and thus are a considerably lower fire risk than basements with no external windows.	Amend sub paragraph (a) to clarify that 7.1.4.1.1 applies to 4 storey buildings over ground which can also include a lower ground floor, and amend sub-paragraph (f) to allow the stairs to extend to basement level where the basement has lobby protection and windows in its external walls.
Construction Industry Federation	TGD B Section 7	7.1.4.1.2	Buildings containing flats	T	The waiving of the 11m height threshold of single stairs is welcome but the proposals in 7.1.4.1.2 do not go far enough to incentivise the adaptive reuse of the large stock of existing buildings in our towns and cities to residential usage. In particular the requirement in 1.6.6.1 of the Draft to have protected lobbies or protected entrance hallways is not practicable in most instances for the type of older 3-5 storey buildings that exist in our towns and cities. Furthermore the provision of lobbies/hallways is also at odds with conservation considerations in those buildings which have Protected Structure designation.	7.1.4.1.2 should drop the obligation to provide protected lobbies or protected entrance hallways in favour of an option for enhanced automatic fire detection and/or suppression. Such alternative provision can readily be substantiated with a comparative fire engineering analysis. Also the requirement to achieve EI 60 rating for floors should be reduced to EI30 for upper floors in accordance with Clause 6.1 of the DOE Guide to Existing Apartments subject to a maximum floor area per storey of 200sqm.
Construction Industry Federation	TGD B Section 7	7.3	Internal Fire Spread	T	The requirement to achieve EI 60 rating for floors should be reduced to EI30 for upper floors in accordance with Clause 6.1 of the DOE Guide to Existing Apartments subject to a maximum floor area per storey of 200sqm	Reduce EI60 ratings to EI 30 for floor areas of up to 200sqm per floor.
Construction Industry Federation	TGD B Section 7	7.5.3	Access for fire appliances	T	The requirement to provide dry risers in stairs in buildings which are being adapted to residential use and having a top floor exceeding 11m is entirely excessive and impractical in many instances. These buildings are adequately catered for with perimeter access and the escape stairs.	Clause 7.5.3 to be amended to allow buildings being changed to apartment usages to be treated as per Clause 5.4.2

Construction Industry Federation	TGD B	Appendix E2 (f)	High bay warehousing	T	<p>The designation of high rack storage exceeding 7m as high hazard has significant cost implications giving rise to the need for roof and in rack sprinkler systems. This change has not been supported by a Cost/Benefit analysis as would be the norm for such as significant design change. The change will have a disproportionate cost effect disadvantage for smaller warehouses (sub 5,000sqm) which are the majority of the national stock and is a blanket change which does not take into consideration the classification of the warehouse contents.</p> <p>The statement in the Preliminary Regulatory Impact Analysis (pp88) that the change will enable uncompartmented floor area to increase from 2000 to 14000 is misleading as currently high bay racking is not defined as high hazard and where the contents are normal risk then the permitted maximum compartment size is already 14,000sqm. It is only the introduction of the blanket definition of high bay racking exceeding 7m as high hazard that allows this misleading statement to be made.</p> <p>A cost analysis of adding sprinklers to a 6200sqm high bay warehouse will increase the cost by between 17% and 22% depending on the commodities being stored in the building. This is nearly twice the figure quoted in the Preliminary Regulatory Impact Analysis and cannot be supported by industry.</p> <p>The proposed changes whereby high rack warehousing must be sprinkler protected regardless of the commodities being stored will effectively end the construction of speculative warehouses as sprinkler system designs are based on the category of goods being stored. For example, adding sprinklers to a typical speculative warehouse will add +€1m in terms of wasted cost, materials and labour in installing the system and then changing this system to suit an occupier. This is contradictory to the Government advice to provide leaner and greener construction to eliminate and reduce waste.</p> <p>This waste and cost is compounded where a landlord leases a warehouse and on the change over of tenancies with a different category of goods, the sprinkler system may be redundant and need to be reinstalled to suit the new tenant. Where this is not done the landlord could be left with a building unoccupiable or severely restricted in terms of occupancy.</p> <p>The current system is more robust and efficient whereby providing the goods remain normal risk and within the parameters of the smoke control system then adjustments are not required.</p>	<p>A Cost/Benefit analysis should be undertaken to establish if the proposal to designate high rack storage >7m can be justified in terms of the life safety obligations of the Building Regulations. It is noted that there is no such requirement in Northern Ireland, England Wales and Scotland and thus this change puts Ireland at a competitive disadvantage with our near neighbours which may impact on the siting of warehouse facilities i.e. in UK rather than in ROI. This inequality is further compounded by the need for roof venting in 6.7 which is not a requirement in NI, England, Wales or Scotland and arguably ought not to be a requirement in Ireland either given the reduced scope of the proposed revised Regulation B5 i.e. protection of life only</p>
Construction Industry Federation	TGD B	6.2.2	Stairwell AOVs	T	<p>The guidance removes the option to include a openable window (OV) for the ventilation of stairwells and mandates a automatic opening vent (AOV). Current practice for OVs includes the use of standard opening sash windows, telewinders or actuators where the opening section of the window is outside arms reach. The guidance does not specify a standard to which Automatic Opening Vents must comply, thus leading to ambiguity in terms of design, construction and BCAR certification. If it is intended that AOVs must comply with EN 12101 -2 then rooflight, window and curtain wall manufacturers incorporating vents which hitherto did not need to to comply with EN 12101-2 will need to be tested as very few presently are. This will lead to a greater backlog at the testing facilities, reduce product availability and choice and ultimately add to construction costs which are not reflected in the preliminary regulatory impact assessment. These costs being passed on to the consumer.</p>	<p>Reinstate the option to use openable windows (OVs) as it has not been demonstrated why they are now unacceptable or insufficient. Provide guidance to acceptable methods of providing manual OVs such as BS 9991:14.2.2.2. Provide guidance for remotely openable vents such as given in BS 9991:14.2.2.3</p> <p>Justify and provide clarity as to the proposed AOVs and if this mandates the use of EN 12101-2 for AOVs then update and republish the PRIA with correct figures so that industry can make an informed assessment and comment on the changes.</p>
Construction Industry Federation	TGD B	6.2.2	Stairwell AOVs	T	<p>The guidance removes the option to include a openable window (OV) for the ventilation of stairwells and mandates a automatic opening vent (AOV). Current practice for OVs includes the use of standard opening sash windows, telewinders or actuators where the opening section of the window is outside arms reach. The guidance does not specify a standard to which Automatic Opening Vents must comply, thus leading to ambiguity in terms of design, construction and BCAR certification. If it is intended that AOVs must comply with EN 12101 -2 then rooflight, window and curtain wall manufacturers incorporating vents which hitherto did not need to to comply with EN 12101-2 will need to be tested as very few presently are. This will lead to a greater backlog at the testing facilities, reduce product availability and choice and ultimately add to construction costs which are not reflected in the preliminary regulatory impact assessment. These costs being passed on to the consumer.</p>	<p>Reinstate the option to use openable windows (OVs) as it has not been demonstrated why they are now unacceptable or insufficient. Provide guidance to acceptable methods of providing manual OVs such as BS 9991:14.2.2.2. Provide guidance for remotely openable vents such as given in BS 9991:14.2.2.3</p> <p>Justify and provide clarity as to the proposed AOVs and if this mandates the use of EN 12101-2 for AOVs then update and republish the PRIA with correct figures so that industry can make an informed assessment and comment on the changes.</p>