







PAPER No. 2

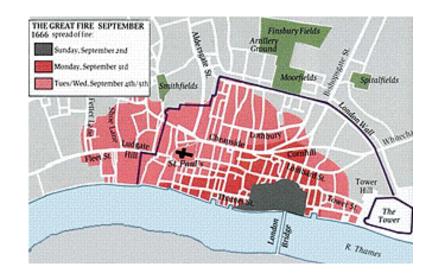
WHY ARE FIRE DAMPERS REQUIRED? THE BUILDING REGULATIONS













Great Fire of London started on 2nd September 1666 was the catalyst for the provision of formal fire prevention and introduction of building codes.





2.1 BRIEF OVERVIEW OF PLANNING DEVELOPMENT LEGISLATION AND BUILDING IN NSW FOR NEW CONSTRUCTION AND REFURBISHMENTS

In NSW, from July 1998, all earlier legislative requirements were brought together under the EP & A Act (1979) Environmental Planning and Assessment Act.

The EP&A Act 1979, Design & Certification Act 2018 and Regulations 2021 & Miscellaneous Regulation 2022 **prescribe** a formalised certification process detailed in the Environmental Planning & Assessment (Development Certification and Fire Safety) Regulation 2021 and is to be followed by Council and/or private certifiers for building and construction work in NSW.

these regulations are readily available: https://legislation.nsw.gov.au/view/pdf/asmade/sl-2021-689





Regulations are subject to change.



2.2 WHAT IS BUILDING CONTROL?

The NSW Department of Planning

The areas of building control are: -

- The law EP & A Act 1979 + Design & Certification Act 2018
- Administration the Regulation 2021 + Amendment 2022
- Actual requirements NCC/BCA & referenced Australian Standards NCC2022 A4G + Shedule 2 (BCA2019 Sect.4) The NCC (BCA) is actually referenced by the EP & A (Dev.Cert + Fire Safety) Regulation 2021 which states [19(1)(c)], in relation to building work "the work must be carried out in accordance with the Building Code of Australia" as in force at the time of the Construction Cert.



2.2 WHAT IS BUILDING CONTROL?

- The BCA vol.1 & 2 with Vol.3 (Plumbing Code) and Vol.4 (Gas Code) is also referred to as the NCC (National Construction Code)
 Suggest if you haven't already done so, that you register for free NCC at: www.acbc.gov.au (click register)
- The EP&A Regulations 2021
- All Fire Safety Systems needs be attested to as performing by a practitioner representing the installer, however from 2025 anyone who installs must have another install. All assessments of fire safety systems, must be conducted by "Accredited Practitioner (Fire Safety)"
- Currently the onus rests with the building owner to determine that the Installer is competent and assessment rests with the accrediting authority (FPAA) to register and manage the Accredited Practitioner Fire Safety providing assessments.



NCC2022 A4G + Schedule 2 (BCA2019 Schedule 4) references these Australian Standards (among others) related to the installation and certification of fire/smoke dampers.

- AS/NZS 1668.1 (2015) Fire and Smoke Control in Multi Compartment Buildings.
- AS 4072.1 (2005) Service Penetrations
- AS 1530.4 (2014) Testing Fire Resistance of Elements of Building Composition
- AS 1530.7 (2007) Testing smoke control assemblies
- AS 4254.2 (2012) Ductwork for Air Handling Systems in Buildings – Rigid Ductwork

Note that free NCC/BCA doesn't mean free Australian Standards – these still need to be purchased.



NCC Clause C4D15 (2)(b) (BCA Clause C3.15 (b)) "In the case of ventilating or air conditioning ducts or equipment, the installation is in accordance with AS/NZS1668.1" Details are provided in Clauses:

- C4D14 (C3.12) Openings in floors and ceilings for services. This clause provides details of shafts
- C4D13 (C3.15) Openings for service installations

Note: NCC C4D10 (C3.9) Service penetrations in fire isolated exits.

Only allows ducting associated with a pressurisation system if it does not open into any other part of the building and must have an FRL -/120/60 if it passes through any other part of the building.



Specification S13C7 (Spec.C3.15) Penetration of walls, floors and ceilings by services – Fire Stopping

Must be adhered to for BCA compliance Note that expanding foam is not an approved material

AS/NZS1668.1 (2015) in turn references other Australian Standards including:

- AS1682.1 & 2 (2015) Fire & Smoke Dampers
 AS/NZS1668.1 (2015) infers service and repair:
- AS1851.Sect.13 (2012) Maintenance of Fire and Smoke Control Features of HVAC Systems.



2.3 DEVELOPMENT CONSENT - THE DA

The Design & Certification Act (2018) requires development consent (via the Planning Portal) - details of which are in the Regulations 2021 and Amended Regulation 2022.

Development is defined to include

- Erection of building
- Carrying out building works including fitout & refurbishment (any partitioning >1.5m height is deemed building works.

For the building works in which mechanical engineering services are included, the development consent (DA) is generally required by the local council for any such works.



2.4 DEVELOPMENT CONSENT - THE DA

1. Pre-lodgement



Concept team (owner, architect, design engineers, principal certifier) shall prepare the design specification and plans inclusive of all reports evidence of advice (eg NSWFR Struct.Fire Div) and safety commitments.

2. Lodgement



Project Manager / Builder or Principal Certifier shall lodge the design specification and plans inclusive of all reports evidence of advice and safety commitments via the NSW Planning Portal https://www.service.nsw.gov.au/transaction/apply-online-development-application-da

3. Assessment



Council assessor shall assess the application and have any queries and/or concern addressed.



2.5 DEVELOPMENT CONSENT - THE DA

4. Determination



Council planning panel shall make the decision that the development Shall conform and shall likely include specific conditions of consent. Such conditions of consent must be adhered to by those constructing as well as any such conditions affecting the ongoing occupation.

5. After decision, Construction Certificate and attached to this shall be where installers will find the



Performance Requirements (NCC and AS reference including year versions and any pertinent Fire Engineering Report reference) and installers must strictly adhere to such requirements, which have precedence over but should align with, the specification.





Installers must commission and ensure performance matches the Construction Certificate Fire Safety Schedule and furnish the Principal Certifier with the evidence (by an APFS) that the installation meets that performance requirement (Commissioning sheets plus Fire Safety Cert.) If satisfied the Principal Certifier shall issue the Occupation Certificate and Lodge it.

FIRE ASSESS™ www.fireassess.com.au

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Address Number	Street Name					1. I have met a	t all the conditions in the	he Development	t Consent or the Complying Devel	lopment Certificate that	at must be				
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Building Name (if I	nown)	Suburb		Description of proposed development (tick as applicable). Is the			the City of Sydney as the		rying Authority or Council's services as the Princip	al Cortifiing Authority					
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Lot Number	DP/SP		VOI/FOI	Please provide a detailed description of works (as per the descrip	tion of works on the Construction Certificate)		ame (please print)		Applicant's Signature*	Di	late				
Part 2: Applica	nt Dotalls														
			benefit of the development consent. A built												
		owner or the person having the e contractor is the owner of the		What is the existing use of the site?		Part 6: Priva	vacy & Personal Info	ormation Prot	tection Notice		(***********				
Title	Given Name/s		Family Name	If within an existing building, specify the location of works within	the building	Purpose of Co Intended reci	cipients: Co	Council staff and	incipal Certifying services in the C approved contractors of the Cou	ncil of the City of Sydn	Part /: Lodg	ement Details			
						Supply:	A	A completed Prir Principal Certifvi	ncipal Certifying application is req ng services.	uired for delivery and	You can lodge	he completed application by: City of Sydney	DX: 1251		
Organisation Nam	e					Access / Corre Storage:	rection: Co	Council staff or G	overnment Information (Public A management system and Archive		MAIL:	GPO Box 1591 Sydney NSW 2001	DX: 1251		
Address				Development Consent/Complying Development number	Date of determination	The informatio	ion you provide in this r	notice is require	ed under the Environmental Plann	ning and Assessment A	IN PERSON:	CBD: Level 2, 456	Kent Street	Monday - Friday 8am-6pm Monday - Friday 9am-5pm, Satu	
				Construction Certificate number	Construction Certificate date of issue	Principal Certil	tifying Authority. Please	se contact Coun	ommence the work. This informat cil if there are any changes to the	information provided		Kings Cross: 50-52 Darlin Globe: 186 Globe P	nghurst Road,		irday 9am-12pm
Note: Before this	application can be lodged	d at least one of the modes of co	ontact below must be supplied.									Green Square: 100 Joynton Redfern: 158 Redfern	Avenue, Street,	Mondaý - Fridaý 10am-6pm Monday - Friday 9am-5pm, Satu	irday 9am-12pm
Home Number		Business Number	Mobile Number	Was the Construction Certificate Issued by Council? (please tick a	plicable box below)						WHAT NOW:	Once your appointment nomi potified in writing of Council's	nation form has be	en received and the inspection fees ie PCA. Council will also nominate t	paid, you will be be critical stage
				Yes No If no, please provide the name of the accredited certifer who issue								inspections that must be carrie	ied out.		in citical stuge
Fax Number		Email Address		If no, please provide the name of the accredited centrer who issue	d the Construction Certificate							mation regarding your applica			
Note: If you are:	pplving on behalf of a con			Certifier's Accreditation Number							TELEPHONE: (ory Declaration - Oaths Ac	Carlot a star started	www.cityofsydney.nsw.gov.au	
	e capacity within the comp			Have all conditions required to be satisfied prior to the commence								eclaration is to be used if requir		form (rec page 2)	
				 Have all conditions required to be satisfied prior to the commenc (Conditions may include payment of security, s94 contributions, e (please tick applicable box below) 	ndorsement of building plans by Sydney Water)							e full name in the box to the rig		ionn (see page s)	
				Yes No If no, work must not commence								r of the property located at (ple		dense in the base balance	
			A Reall	If Yes, please provide the date work is to commence							being the owne	r of the property located at (pie	ase provide ruil add	dress in the box below)	
TRIM 2011/088542 VC	2-14	Ĩ	city of villa	Note: If you cannot provide a commencement date at the time of the date at least two (2) days before work commences.	completing this form, you must notify Council of						do solemnly an (please tick app	l sincerely declare that the reas icable box)	onable estimated n	narket cost of the approved buildin	g work is not more than:
											\$5,000	\$20,000			
				 Are you going to build, alter or extend (please tick all applicable) (a) A dwelling or other structures and improvements, such as a system of the structures and improvements. 							I make this sole Oaths Act 1900	nn declaration conscientiously	believing the same	to be true, and by virtue of the pro	visions of the
				associated with a dwelling: or (b) A residential building ie. villa. duplex. townhouse. flat building							Oatris Act 1900	(owner's signature)	(da	ite)	
				Yes No If no, you do not need to answer											
				If yes, go to Question 2, on the following page.											
											(name	of witness - please print)		(witness signature)	(date)
											Witness Veri	ication			
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2.6 WHAT YOU NEED TO DO PRIOR TO COMMENCEMENT OF CONSTRUCTION

- You as installers MUST Read the DA and CC conditions
- Note intermediate or final inspections and certifications required
- Check the references to mechanical works are accurate in relation to NCC compliance, relevant Australian Standards and your scope of works.
- Check the references to essential fire safety measures
- SEE THE CC FIRE SAFETY SCHEDULE ESSENTIAL ACTIVITY
- Report any anomalies, mistakes to the builder



The PC principal certifier (either council or private certifier) is solely responsible for compliance issues covered by the construction certificate. They shall require a certificate/statement of compliance from a mechanical designer/contractor confirming the design is in accordance with the current NCC and relevant Standards for the essential or non-essential fire safety measures, air conditioning or ventilation.

We suggest that the Mechanical Installer does need to provide separation by submitting a Fire Safety Certificate pertaining to the essential fire safety measures (listed on the CC FS Schedule) and that of the non-essential measures (eg AS1668.2-2012, NCC/BCA F4.#, etc.) See attachments for sample forms.



MECHANICAL VENTILATION: CERTIFICATION OF DESIGN (VENTILATION ACOUSTICS, FIRE PRECAUTIONS. SMOKE HAZARD MANAGEMENT)

Manager Building Services Planning and Building Division <Local> Council

SUBJECT PREMISES

BUILDING APPLICATION NO.

Pursuant to the provisions of Section 93 of the Local Government Act 1993,

I hereby certify that the design of the new/altered mechanical ventilation system meets the current requirements of the Building Code of Australia * and in particular is designed in accordance with the Following:

- The Council approved Architectural plans dated [See Note (iii)]
- 2. AS 1668 Parts I and 2 and Sydney Ventilation Code where appropriate.
- 3. All conditions based on recommendations of the NSW Fire Brigade
- * Where compliance with the prescribed or deemed provisions of the Building Code of Australia is not possible reasons must be submitted with this Certificate, together with evidence of any dispensation granted by Council or the NSW fire Brigade.

I am an appropriately qualified and competent person in the area of mechanical ventilation and as such can certify that the design and performance of mechanical ventilation systems comply with the Building Code of Australia, AS1668 and other relevant Codes.

I possess indemnity insurance to the satisfaction of the building owner or my principal-

Full Name of Ce	ertifier			
Qualifications 8	Experience	**Ple	ease attach C.V.	
Address of Cert	ifier			
Phone Number	Bus	Mobile	Fax	
Signature	<u> </u>	Date	•	
Name of Emplo	yer, (Self or Comp please submit C.	any) V. with your first Certification.)	
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II. The Local Gover III. List and attach c IV. Departures from	nment Act 1993 absolve olour-coded plans, Drav the prescribed design	dit, or reject any aspect of Certifica es Council from liability by relying of wing Numbers; and revisions to wh provisions of the BCA must be jud (e.g. smoke test)	on this Certificate. hich this Certification applies	
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2.7 WHAT YOU MAY NEED TO DO DURING CONSTRUCTION

- From 1st July 2021, only an accredited fire safety designer are able to provide essential services design for their specialty for Class 2 Developments (this shall extend to other class buildings).
- From 2025, an accredited assessor must endorse the performance of every fire safety measure and the accredited assessor cannot have been associated with the installation of that measure.
- The PC (council or private) will determine any intermediate inspection stages required.
- These will be noted on the construction certificate and must be scheduled with your works
- For part completion of the project, Fire Safety Certificates are still required for partial completion of particular services in particular areas.



2.8 IMPORTANT CONTRACTUAL 'SCOPE OF WORKS' ISSUES

Most mechanical installations require building and other services works for their completion and operation.

Certification of 'mechanical works' must have all the associated building, electrical, control, hydraulic works necessary to test, commission and provide ongoing performance, prior to being acceptable to any certifier.

e.g. smoke dampers need power and initialising detector interface to operate, if these are incomplete, then it cannot perform.



It is essential, at the commencement of the mechanical works as well as during, installation, that the builder/project manager/ architect/ as well as other trades, are kept informed by detailed consultation and agreement, that 'other works' essential to mechanical services functioning, are defined and completed:

- by who
- to what standard
- by when

so that certification of the installation and performance for the project and services, at completion, can be validly carried out.

After the ceilings and joinery are installed, **IT IS FAR TOO LATE** to point out that the penetrations around the fire or smoke dampers are incomplete.



You need to deal with this!

It is suggested that an effective way is, to preprepare for at every site meeting, and that have minuted these meetings and where necessary that you follow up with you own message or email to the project manager with the following or similar:



- the following works by others are incomplete or defective (list of the deficiencies)
- no certification of mechanical or fire safety works will be possible until these (list) works are completed to (refer specification or Standard)
- the following additional time (hours/days) will be required to test/commission/document the system performance after all such works are complete (penetrations sealed to AS4072.1-2005, building elements completed around the fire dampers to AS1682.2-2015, electrical power, fire control interlocks, smoke detectors, panels and alarms to AS/NZS1668.1-2015 ...and so on) and before certification can be finalised.

This cannot be left until the end of the project. Certification requirements must be identified, programmed and monitored from the project start, to avoid any confrontation at the end.



2.9 WHAT YOU NEED TO DO AT THE COMPLETION OF CONSTRUCTION

The PC (local council or private certifier) will be issuing an occupation certificate at completion of the works, prior to their use.

The PC will require a Final Fire Safety Certificate which must reflect that of the Construction Certificate fire safety schedule

All services on this schedule will need to be certified as being designed and installed to a reference (Australian or industry) Standard.



The PC will also require a certificate attesting that essential mechanical fire safety measures as well as a statement that non-essential mechanical engineering services, are designed and installed to a reference (Australian or Industry standard) - such as air conditioning or mechanical ventilation. These certificates statements of design/installation/ performance compliance shall be provided to the client/owner/head contractor and forwarded to the PC (private or council) and so your statements/ certificates are filed in the planning portal and kept on the public record.

These shall also be bound into the project O&M Manual

Ensure that those Fire Safety Schedule items are segregated from non-essential services (AS1668.2, etc)!



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MECHANICAL VENTILATION: CERTIFICATION OF COMPLETION AND PERFORMANCE (VENTILATION. ACOUSTICS, FIRE PRECAUTION & SMOKE HAZARD MANAGEMENT)

Manager Building Services Planning and Building Division <Local> Council

SUBJECT PREMISES

BUILDING APPLICATION NO

Pursuant to the provisions of Section 93 of the Local Government Act 1993.

I hereby certify that the mechanical ventilation system has been installed or altered at the above premises in accordance with the Certified Drawings and Documentation specified in "MECHANICAL VENTILATION: CERTIFICATION OF DESIGN" and in accordance with the approved plans released for construction.

The installed mechanical ventilation system has been inspected commissioned and tested, and performs in accordance with the approved plans, the accepted Certified Design, and any dispensation granted by Council or the Fire Brigade

Details and performance tests as applicable are submitted in the attached documents.

- II. acoustics and vibration
- III. fire prevention
- IV.smoke hazard management

I hereby certify that I am an appropriately qualified and competent person in the area of mechanical ventilation and as such can certify that the installation and performance or mechanical ventilation systems comply with the Building Code of Australia, the plans approved by Council, AS1668 and other relevant Codes.

I possess Indemnity Insurance to the satisfaction of the building owner or my principal-

· / · · · / / /			
Full Name of Certifier	/		
Qualifications & Experience	**Please attach C.V.		
Address of Certifier	/		
Phone Numbers Bus Mobile	Fax		
Signature	Date		
Name of Employer, (Self or Company) "Curriculum Vitae please submit C.V. with your first Certification. Note. 1. Council reserves the right to inspect, audit, or reject any aspect 11. The Local Government Act 1993 absolves Council from liability I 11. Attach all test figures and other documentary evidence to which 11. Attach evidence of performance to validate departure from press List of Drawing Details pertaining to this certificate. JOB NO, DRAWING NO.	by relying on this Certificate, this Certification applies. criptive design provisions of BCA.	Issue	
EWDIRECTIONS INTERNATIONAL BI	USINESS SERVICES	PTY LIMITED AB	8N 49 083 183 751



Fire Safety Schedule

If the client doesn't have a copy of the current fire safety schedule with the current construction certificate – Council should have a copy of the schedule and shall make it available (*to the building owner*) as per Regulations 2021, Part.10, Section 81 (3)

As soon as practicable after receiving a request, Council (as agent of the planning regulator) are required to provide the owner with a copy of the current fire safety schedule for the building that they have on there record.



FIRE SAFETY SCHEDULE (Issued pursuant to Clause 168 Environmental Planning & Assessment Regulation 2000)

Premises:
BCA Class:
Reference/s:
Date of Issue:
Owner:

The following essential fire safety measures shall be implemented in the whole of the building at the abovementioned premises. Each of the fire safety measures must satisfy the standard of performance listed in this schedule. This schedule is deemed to be the current fire safety schedule for the building.

Measure	Standard of Performance	Existing	Proposed	
Automatic Fire Detection & Alarm System	BCA 2019, Specification E2.2a; AS1670.1-2018		1	
Building Occupant Warning System	AS1670.4 - 2015, AS2220.2		1	
Smoke Detectors and Heat detectors	BCA 2019, Specification E2.2a;, AS1670.1-2018	1	1	
Mechanical Air Handling System	BCA 2019, Clause E2.2; AS 1668.1 - 2015		1	
Fire Hose Reels	BCA 2019 Clause E1.4, AS 2441-2005			
Fire Hydrants	BCA 2019 Clause E1.4, AS 2419-2005	1	1	
Portable fire extinguishers	BCA 2019 E1.6 AS2444 - 2001	1	1	
Fire Blankets	BCA 2019 E1.6 AS2444 - 2001		1	
Emergency lighting	BCA 2013 E4.2, AS/NZS 2293.1 2018	1	1	
Illuminated Exit signs	BCA 2013 E4.2, AS/NZS 2293.1 -2018		1	
Paths of travel	BCA 2019 D1.6, & Clause 186 EP&A Regs 2000		1	
Fire Doors	BCA 2019 Specification C3.4, As1905.1 2015	1		
Fire Windows	BCA 2019 Specification C3.4, As1905.1 2015		1	
Light weight construction	BCA 2019 C1.8 Lightweight construction		1	
Warning and operational signs	EP&A Regs 2000 Part 9, Division 7, Clause 183		1	

Upon the installation of any proposed fire safety measures, the owner of the building shall submit to Council a Fire Safety Certificate with respect to each fire safety measure nominated in this schedule. A copy of the certificate (together with a copy of this schedule) must be forwarded to the Commissioner of the Fire and Rescue NSW and a further copy of the certificate (together with a copy of this schedule) must be prominently displayed in the building.

At least once in each period of twelve months for existing fire safety measures, or within 12 months after the initial Fire Safety Certification of newly installed measures, the owner of the building shall submit to Council an Annual Fire Safety statement with respect to each fire safety measure nominated in this schedule. A copy of the statement (together with a copy of this © 2013~2023 NEWDIRECTIONS INTERNATIONAL BUSINESS SERVICES PTY LIMITED ABN 49 083 183 751



2.10 OCCUPANCY CERTIFICATE

Occupancy Certificate (EP&A Design & Cert Reg Part 5 cl. 41 & 42) can only be issued by the Principal Certifier, once they are satisfied that;

- The building is suitable for occupation or use in accordance with its BCA classification and
- A DA is in force
- A CC has been issued
- Fire safety scheduled items are certified as complete (Brigade compliance if required)
- Note that you have a responsibility to formally inform the PC of any defective issues of which you are aware, prior to that issue of the OC



OCCUPANCY CERTIFICATE

In other words, the PC must form a view that the building is safe to occupy.

Comment:

The extent to which all NCC and Development Approval requirements are fully complied with - is an issue for the Principal Certifier to decide and they **must** still remain a part of the management of all defect remediation.



New Building)

Applicant

Address:

Phone:

consent:

Address: Phone:

Date Issued:

PROPOSAL

Exclusions:

Lot/DP:

APPLICANT DETAILS

OWNER DETAILS

RELEVANT CONSENTS

Address of Development:

Building Classification/s:

Fire Safety Schedule:

Certifying Authority

Accreditation Body:

Una.

Robert Wood

DETERMINATION

Approval Date:

Development Consent Number:

Construction Certificate Number:

Plans and Specification approved:

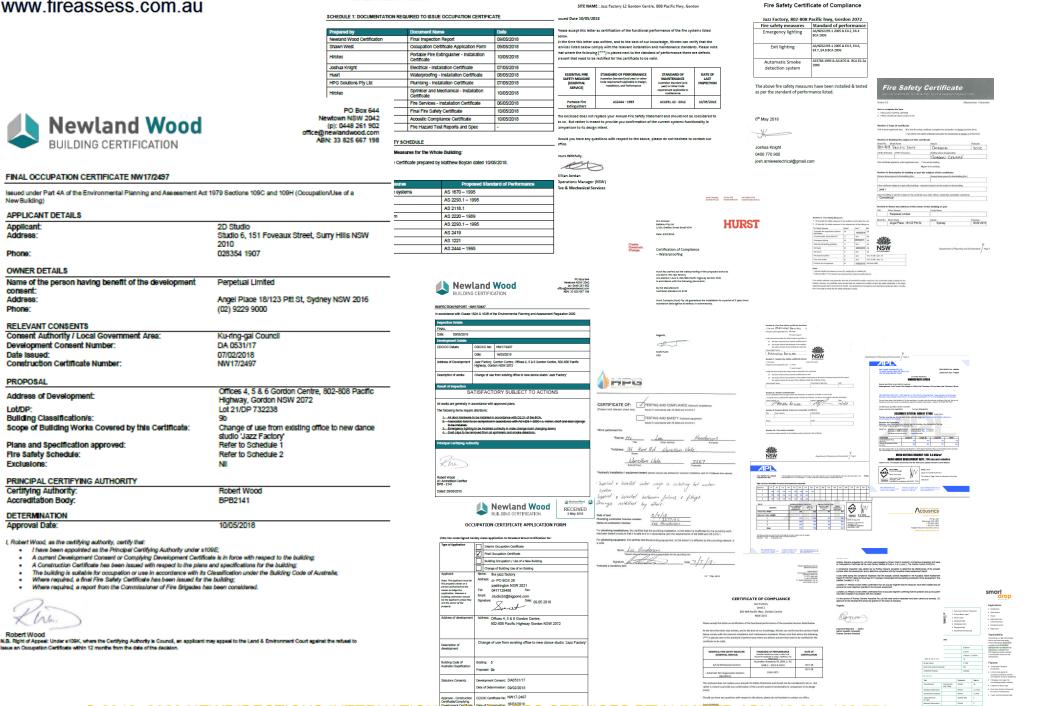




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ACR - ANNUAL CONDITION REPORT





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 JOHN M
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WHAT ABSOLUTELY NOT TO DO Don't sign any 'certificates' unless >

- Installed precisely as reflecting the installation instructions of the manufacturer/test sponsor - define with what Australian or industry standard/s.
 Note that there is a significant difference between "Industry Standard" and "Industry common Practice"
- The installation conforms to the performance requirements/ Australian standards inclusive of year version of the requirement identified in the Construction Certificate Fire Safety Schedule.



- Have you (personally) physically checked, and are you competent to check - what made you competent?
- If others have checked and you are relying on them what is their methodology and credentials
- If you are being contractually "pressured' to sign some documentation, you should be asking - "What section of the EP&A Design & Certification Act 2018 and Regulations 2021 are being asked to exempt and under what authority is this request being made?"



Remember, the public totally relies on the installed essential (fire safety) measures to operate correctly when required (fire and smoke dampers are a significant part of these essential services).

The test - you are a witness in the coroner's court, after some horrific incident – <u>your name</u> is on the certificate - <u>you explain</u> why it failed to work when required!







2.11 THE IMPORTANCE OF OCCUPANCY CERTIFICATES (ISSUED BY THE PCA) TO YOU

Remember that the issue date of the occupancy certificate is the trigger for the 12 month DLP period to start the installers liability for any defective work identified after which the site works liability transfer from builder/installer onto to owner.

No occupancy certificate, **no** trigger, so your liability (and the entire design/installation/construction term) *may stay open ended.*

You should always request the owner/agent/PC issues you with a copy of the occupancy certificate, that way your liability is time capped. The owner moving in and occupying does not start the DLP clock ticking, only the PC/Council sign off via the occupancy certificate.



THE IMPORTANCE OF OCCUPANCY CERTIFICATES (ISSUED BY THE PCA) TO YOU

Be aware that any defects identified and outstanding prior to the issue of the Occupation Certificate must be remedied in a timely fashion and under the management of the Principal Certifier. ie. The items must be fixed, commissioned and the PC notified.

Any defects identified during the 12-month period and not remedied during that period shall be deemed as an outstanding defect and still necessitate remediation by the builder/installer.

Some building owners contract for extended DLP and this shall continue the DLP liability for that extension.



2.12 THE SIGNIFICANCE OF THE DATE OF CONSENT AUTHORITY APPROVAL

The date of the DA Approval Sets the Relevant Date for Approved Standards versions.

This is particularly important for older buildings, refurbishments and upgrades in existing buildings.

Generally in buildings, regulation compliance relates to the **most recent** development consent (DA) for that building or part of building and usage.

The regulations in force may relate to superseded building regulations and Australian Standards - so the PC (council or private) for the current works, **must** indicate what regulations and standards are applicable.



It is certainly not mandatory for old buildings to have **all aspects** of structure and services brought up to current BCA and Standards - unless the consent authority specifically indicates this is required via an order and notice process.

New buildings are most likely to require correct compliance in all respects (check the CC and DA) (see NCC A2G2 (BCA A2.2) performance based solutions). Watch for council concessions or performance based solutions which could provide variations.

Older buildings may have very different compliance regimes according to what regulations and standards were in force at the date of granting of DA and to which compliance may still be linked.

All new works must conform to the codes for the approved BA/DA. i.e. new works in hospitals will need smoke dampers.



2.13 WATCH FOR PERFORMANCE BASED SOLUTIONS WHICH DIFFER FROM BCA PRESCRIPTIONS

Since 1996 the BCA (and now NCC) has allowed regulation compliance by either:

- 1. following the NCC prescriptive (Deemed to Satisfy) as specified, or
- 2. by an approved "performance" solution (ref. NCC A2G2 / BCA A2.2)

As a consequence, many "performance" solutions have been approved with 'non-standard' features as part of compliance.



If this is the case, you must understand the full design intent and installation requirement of any "performance" solution, as well as the testing and certification consequences and these should be found within the Fire Engineering Report Document.

You need to see this documentation – ref. the DA/CC from Council records which allows and describes the "Performance Solution" and how it operates.

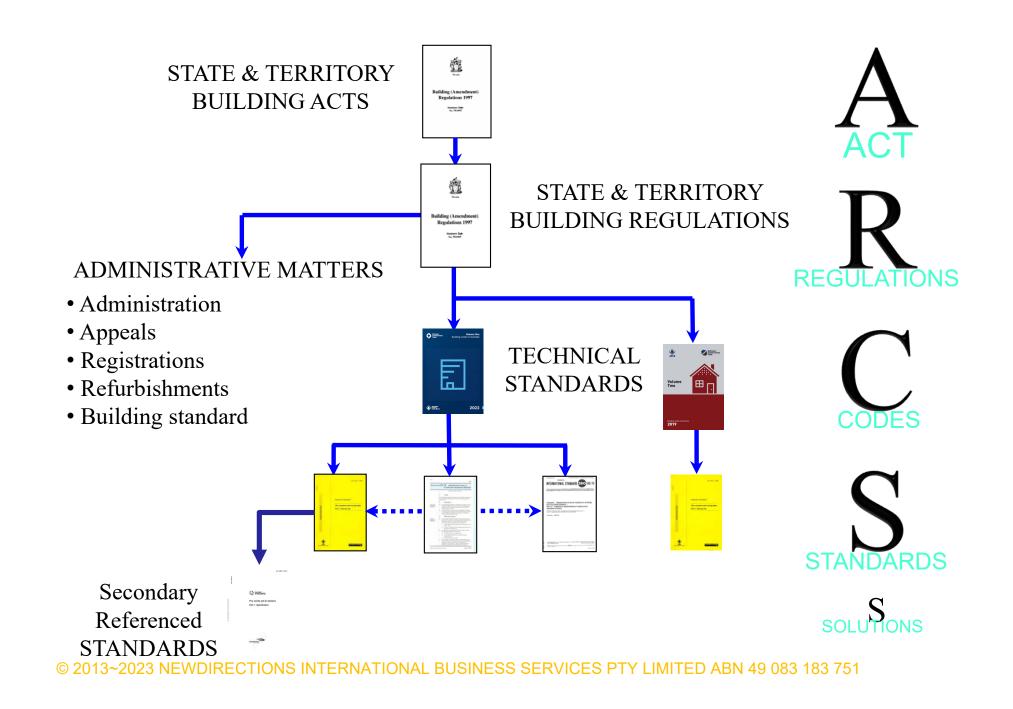


2.13.2 The Building Code of Australia

- The NCC establishes minimum standards for new building work
- The NCC -
 - is referenced in State /Territory law (see next slide)
 - is amended 3-yearly requirements are intended to be cost effective
 - requirements are intended to eliminate poor practice
 - does not address best practice





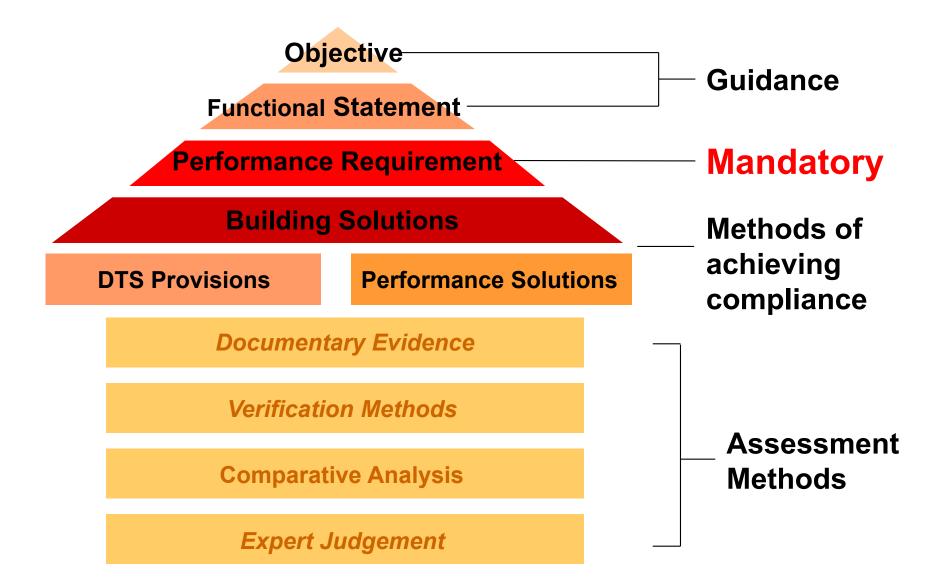




2.13.3 **NCC Volumes** Together known as the NCC or National Construction Code **Volume One** contains requirements for the design and construction of commercial, industrial, retail & community buildings; i.e. NCC/BCA Class 2 to 9 buildings, plus some Class 10 matters **Volume Two** contains requirements for the design and construction of *domestic* buildings; i.e. Class 1 and 10 buildings, plus some Class 10 structures (not applicable for this course)

- Volume Three is the plumbing code requirements (not applicable for this course)
- Volume Four is the Gas code requirements (not applicable for this course)





2.13.4

Complying with Performance Requirements

Compliance with the *Performance Requirements* can only be achieved by:
a) complying with the *Deemed-to-Satisfy Provisions*, or
b) formulating a *Performance Solution* which
(i) complies with the *Performance Requirements*, or
(ii) is shown to be at least *equivalent* to the *Deemed-to-Satisfy Provisions*; or
c) a combination of a) and b)



2.15.5 **Design Flexibility**

- The NCC provides two pathways to formulate a "Performance" Solution; i.e.
 - formulating a Performace Solution to meet the Performance Requirements, or
 - formulating a Performance Solution to at least equate to Deemed-to-Satisfy Provisions
- Either of these options can be explored to establish the most appropriate pathway for a particular *Performance Solution*
- A decision regarding the most appropriate pathway may be influenced by the views of the Building Control Authority



2.13.6 Consultation

- It is beneficial to discuss a Performance Solution with the authority before lodging an application for approval
- Also discuss the scope of supporting documentation needed to be provided
- The Authority can advise on likely Assessment Methods but should not become involved in development of the design



2.13.7 Assessment Methods

Four Assessment Methods are **listed** in **Part A5**;

- Evidence of Suitability as per Clause A5G2, A5G3, &/or A5G4
- Verification Methods as per Clause A2G2, C1V4
- Comparison with Deemed-to-Satisfy Provisions as per Clause A2G2(2)(d)
- **Expert Judgment** as per Clause A2G2(2)(c)



2.13.8 Evidence of Suitability

- Evidence of Suitability to A5G2, A5G3, &/or A5G4
- The listed processes are generally third party mechanisms that may be used to assist either the formulation or assessment of *Building Solutions*



IMPORTANT CAUTION

When a designer/installer/commissioner is complying with ANY NCC Deemed to Satisfy (A2G3) provision, they can rely on the internal consistency of the NCC so that all other NCC DtS provisions can be assumed.

However, outside of the NCC DtS provisions, any proposed "Performance" Solution, in addition to having to be verified according to A2G2 and A2G4, it **must** also be checked for consistency with (that is, **not conflicting with**) **all** other NCC DtS and performance solution provisions.

This requires that designers must not focus purely upon their own part of a solution but take on responsibility of any consequences arising from their design.



2.14 DO NOT SIGN "CERTIFICATES" REQUIRED UNDER THE BUILDING RULES CONSENT UNLESS YOU ARE QUALIFIED AND ACCREDITED TO DO SO.

Before **you** sign, whatever the issue/work/data - requiring to be signed off, always ensure

- The description of what is to be approved is clear and accurate and does not include general descriptions, systems, data, equipment, you do not have knowledge of.
- The Standard or specification to which you are agreeing you work/data does comply, with specific reference to date, section or version of that specification or reference.
- Clarify what authority/competence you have to sign. If you hold accreditation, then this must be identified.



Satisfy yourself

(on behalf of your Company if appropriate)

- What liability you are taking on, and for how long, by your signing.
- What regulation or **contractual obligation** are you satisfying by your sign off.
- Are you insured for and/or have you been paid for, taking on this liability



END OF PAPER No. 2