



Building Manuals- A response to the Building Confidence Report Discussion paper 2021

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Building Confidence Report recommendation 20

The Building Confidence Report (BCR)¹, published in April 2018, made 24 recommendations to Building Ministers to address issues in the Australian building industry. Building Ministers supported the recommendations and established the BCR Implementation Team within the Office of the Australian Building Codes Board (ABCB) to respond to the recommendations.

BCR recommendation 20 is “that each jurisdiction requires that there be a comprehensive building manual for commercial buildings that should be lodged with the building owners and made available to successive purchasers of the buildings”.

The BCR defined commercial buildings as Class 2 – 9 buildings². Class 2 buildings are apartment buildings, acknowledged to be creating new risks and challenges for regulators.³

Under the updated Building Confidence National Framework⁴, the agreed outputs for recommendation 20 are guidance for states and territories and/or non-regulatory tools. The guidance is to include a dataset to encourage consistency across jurisdictions.

This paper explores the nature of the problem identified by the BCR, how a building manual could be created and used by building practitioners and owners, and the type of data that should be included in a building manual. It proposes and seeks your views on:

- how common terms, related to building manuals, should be defined;
- the information that should be collected in building manuals;

¹ Available at: https://www.industry.gov.au/sites/default/files/July%202018/document/pdf/building_ministers_forum_expert_assessment_-_building_confidence.pdf.

² An explanation of building Classes is available at: www.abcb.gov.au/Resources/Publications/Education-Training/Building-classifications.

³ Queensland Audit Office, Licensing builders and building trades Report 16: 2019–20, available at: <https://www.parliament.qld.gov.au/Documents/TableOffice/TabledPapers/2020/5620T978.pdf>.

⁴ The Building Confidence National Framework was revised following the November 2020 Building Ministers' Meeting. Originally the outputs agreed were model provisions and/or non-regulatory tools. The updated Framework is available at: <https://www.abcb.gov.au/Resources/Publications/Corporate/Building-Confidence-National-Framework>.

- possible processes to create building manuals; and
- the types of buildings that should require a building manual.

The problem

The BCR identified that owners of Class 2 – 9 buildings often do not receive full sets of final documents related to the design and construction of their buildings, including those needed for ongoing management. This limits the ability of building owners to verify how decisions were made and to adequately ensure maintenance of essential safety systems. It may also impact on safety outcomes for building users.

There are two points at which there is often failure to provide complete and available building information: firstly, the point at which a building is completed and handed over from a developer or builder to a building owner (in the case of Class 2 buildings, this is the first meeting of the Owners Corporation); and secondly, the point at which a building is subsequently sold by an owner (who is not the original developer or builder) to a new owner and similar re-sales.

Even if a building owner receives building information, few have the knowledge and ability to check that the information aligns with the building as-built (i.e. is complete and accurate) and that it meets legal and/or operational requirements (i.e. essential building services are maintained and records updated).

Some owners of large numbers of buildings, such as retail corporations, already require building manuals to be created to ensure safe and effective building management. The high level of detail in these building manuals is not typical of broader industry practice. It may also not be useful for most building owners or efficient for building practitioners to provide.

Feedback from companies that produce digital building manuals confirms the usefulness of a building manual for building owners, and the loss of transparency and accountability when one is not created or does not contain understandable or usable information.

Feedback also confirms that industry stakeholders believe the requirement for a building manual must be legislated and specify its structure, content and any penalties for not providing a complete and accurate building manual to a building owner. Without this, industry believes it is unlikely that developers will provide

complete information to building owners in a usable format, or that building owners, and those who maintain their buildings, will continue to record accurate and complete information during a building's life.

Without accurate and complete information, building owners cannot make informed decisions about building operations and maintenance of safety measures. This increases safety risks to building users and liabilities and potential losses to the building owner. Where building information can be recreated, it is at extra cost to building owners.

The failure to provide initial building owners this information has ongoing impacts. Most Australian jurisdictions require sellers to provide certain information to potential buyers; this process is known as "disclosure". If the information held by building owners is incomplete or inaccurate, so too will be the information provided to buyers and potential buyers. In many Class 2 – 9 buildings, facility or strata managers prepare information for potential buyers, on behalf of building owners. Some facility or strata management contracts may protect the manager from being held responsible for providing incorrect information⁵, so there may not be an incentive to ensure the information is accurate.

For many people, a residential property is their biggest asset⁶ and the largest purchase they will ever make⁷, however lack of complete and accurate information impedes their ability to make informed decisions to invest in buildings. This increases the risk that by buying the building, they are exposed to liability or loss.

Importantly, owners corporations are responsible for maintaining strata buildings. Stakeholder feedback notes that residential buildings are becoming more complex, meaning more information is also needed to manage them. Without it, owners corporations may not identify and address building defects during warranty periods, after which they become responsible for the costs of repair. They may also not be able to develop and implement maintenance plans, asset registers, asset

⁵ Johnston and Leshinsky, 2018, Gatekeeping information in the multi-owned property environment, available at: <https://www.emerald.com/insight/content/doi/10.1108/PM-04-2017-0025/full/html>.

⁶ Australian Bureau of Statistics, Household Income and Wealth, available at: <https://www.abs.gov.au/statistics/economy/finance/household-income-and-wealth-australia/latest-release#key-findings>.

⁷ Miller et al., available at: <https://eprints.qut.edu.au/10255/1/10255.pdf>.

replacement plans, long-term capital spending forecasts and undertake repairs. Owners may be further impacted by the inability of owners corporations to correctly set capital fund levies to meet asset replacement needs.

Anecdotal evidence suggests that insurers also charge higher premiums where there is little information about a building. Alternatively, they may fund inspections of higher risk buildings to more accurately calculate premiums. Better access to building information may therefore decrease insurance premiums for building owners and, it has been suggested, for building practitioners.

The recommendation

The BCR recommended that each state and territory require a comprehensive building manual to be given to building owners and passed to subsequent owners. It recommended that the required information be provided digitally and include:

- as-built documentation,
- fire safety system details and maintenance requirements,
- assumptions made in any Performance Solution (for example, occupant characteristics),
- building product information, including certificates and details of maintenance or safety requirements, and
- conditions of use such as occupant numbers, loads and replacement of products after certain periods.

Implementing BCR recommendation 20 is likely to improve operational decision-making, reducing defects that are due to incorrect or inadequate maintenance. This will reduce risks to the safety of building users. It may also reduce information asymmetry⁸ for purchasers of Class 2 – 9 buildings.

Stakeholder feedback about the problems

Stakeholder feedback has confirmed that information is not always provided to initial building owners and later purchasers. Stakeholders also confirmed that even when

⁸ Information asymmetry is when two parties to an exchange, such as purchase of a property, have different information relating to the exchange. The developer of a Class 2 apartment building, for example, has more information about the building than a consumer who is considering purchasing an apartment and has not been involved in its construction.

building information is given to building owners, they are often not able to verify the information is accurate and complete, meaning building owners may also fail to seek correct information from the developer or builder.

Consultation has highlighted other types of failures to share building information.

- It is common practice for new facility/strata managers to audit buildings and their assets, create maintenance schedules and update maintenance logs during the life of a contract. At contract's end, however, this information is rarely given to incoming facility/strata managers or building owners even if it relates to essential safety systems.
- When building information is given to incoming facility/strata managers or building owners, it may not be complete or in a usable format. Stakeholders have spoken of "data dumps" – information about a building that is downloaded from a building management program and given to building owners, but which the building owners cannot use because they don't have access to the same program.

These issues appear to be perpetuated by:

- Lack of incentive for departing managers to provide complete and usable information to new managers or building owners. Building owners are legally responsible for the maintenance of buildings, even when they have given a facility or strata manager the ability to make maintenance decisions. Further, contracts may not state that the departing facility/strata manager must provide building information so building owners may be asked to pay additional fees for it.
- Most building owners and owners corporations do not have knowledge of their maintenance obligations so are willing to pay new managers to recreate destroyed or missing information.

It is possible for building owners to address some issues by including a requirement in contracts that departing facility or strata managers must provide building information to them, in a specified format, at the end of the contract. This is not ideal, as it places responsibility on building owners, who become responsible for ensuring the requirement is met. It may still not ensure information is complete and accurate.

Some state and territory governments are moving towards centralised collection and storage of building information through e-planning systems. These systems would collect documentation related to planning or approvals processes and potentially

some compliance and regulation matters. In future, building owners may be able to access this information.

Some stakeholders have commented that there are privacy, security and copyright issues related to collecting and storing building data. These issues are not explored in this paper as they are a matter for state and territory governments to address in their respective legislative contexts.

The role of the building manual

In addition to avoiding safety risks caused by incorrect or incomplete information, other potential benefits of a building manual include improving transparency and accountability for consumers, which may lead to improvements in work practices in the building industry.

There is limited data about defects, however the data that exists indicates that many, if not most, defects are caused prior to occupation. Some maintenance or operational defects would be avoided if complete and correct information is available to building managers and owners.

Other benefits of a building manual may include:

- increasing information available to assist potential buyers to determine their willingness to invest in a building,
- increasing information that can be used when making maintenance decisions,
- ensuring building use is consistent with design assumptions, minimising safety risk to building users,
- saving time and money preparing documentation for renovations or large changes to buildings, and
- reducing insurance premiums.

Building manual users and beneficiaries

Some stakeholders have said that because building owners often outsource the management of their buildings, building manual users might vary widely. This paper is based on building owners and building managers being the primary users.

Secondary users could include maintenance contractors. Based on owners corporations generating information about assets and buildings, users such as accountants could determine plant and non-plant depreciation. Government users could include regulatory officers auditing buildings, or fire services responding to emergencies at the building.

Previous feedback from fire services was that they may be willing to use building manual information when responding to an emergency if they have confidence the information is accurate and complete. Relying on inaccurate or incomplete information could create safety risks.

The draft dataset in this paper is based on the assumption that building owners are the primary users. Questions are included to seek information about whether the data points included are correct for this assumption. The draft dataset is smaller than some stakeholders would like as it aims to include only “necessary” information, rather than “nice to have” information. This will hopefully mean the building manual can be implemented successfully and be useful to building owners, rather than overwhelming.

Preferred terms

The BCR noted each jurisdiction has developed different ways of describing the same or similar terms and processes. This makes it difficult for governments to compare systems and share data and for businesses and consumers operating across jurisdictions to understand systems, processes and obligations. To address this, BCR recommendation 22 is for preferred terminology to be developed for jurisdictions to adopt over time as they revise and amend their legislation.

If agreed by the ABCB and Building Ministers, these will be consolidated into a Preferred Terms Publication for adoption into State and Territory laws. Current legislative terminology used across Australia has been considered when developing the proposed terminology. The agreed terminology used in the Preferred Terms Publication will not be legal definitions unless adopted by jurisdictions.

Table 1 Draft definitions for preferred terms

Preferred term	Alternative terms	Proposed definition
As-built documentation	As-built plans, as-built drawings	means documentation that records the details of a building at completion of its construction or alteration. It includes plans and specifications and should provide adequate detail such that it can be used to inform safe and proper decisions about the building's use.
Building data	Building information	means the data, or information, relating to a specific building that is required or used to: <ol style="list-style-type: none"> construct the building; use the building; or seek any kind of approval in relation to that building. Building data includes data about systems and fittings in the building that must function to protect the safety of building users. Building data includes detail such as the calculations, tests or reports used to demonstrate performance requirements of the NCC have been met.
Building manual		means a document that is a subset of building data relating to a specific building. It acts as a record of, and guide for, decisions about the building's safe and proper use.

Preferred term	Alternative terms	Proposed definition
Essential building services	Essential building measures	<p>means features or measures that are required to be provided in, or associated with, a building as per legislation or the National Construction Code. This may include, but is not limited to:</p> <ul style="list-style-type: none"> a. building fire integrity b. means of egress c. signs d. lighting e. fire-fighting services and equipment f. air-handling systems g. automatic fire detection and alarm systems h. occupant warning systems i. lifts j. standby powers supply systems k. natural or mechanical ventilation l. access for persons with a disability m. hot water, and warm water and cooling water, systems; n. energy efficiency; o. water efficiency; p. the safety of occupants of premises in case of bushfire, flood, landslip or coastal inundation; q. building clearance and fire appliance access; r. building use and application; s. emergency evacuation procedures; t. on-site wastewater management systems; u. testable backflow prevention devices; v. a thermostatic mixing valve or tempering valve installed in an early childhood centre, primary or secondary school, hospital, nursing home, educational institution or similar facility for young, elderly, sick or disabled people; w. on-site liquid trade waste pre-treatment equipment; x. other safety features required in a building including barriers, fencing and glazed assemblies; y. a feature or measure, including a feature provided as part of an alternative solution specified by a building surveyor as an essential safety health feature under the Act or an essential building service or as essential for the safety and health of the occupants;

Preferred term	Alternative terms	Proposed definition
		<p>z. a feature or measure that, at the time the feature or measure was installed, was an essential health and safety measure under legislation in force at that time;</p> <p>aa. a plumbing installation, feature or measure that –</p> <ul style="list-style-type: none"> a. required a plumbing permit, or was high-risk work, to be installed; or b. required a special plumbing permit, within the meaning of the Building Act 2000, to be installed; or c. is provided as part of an alternative plumbing solution – d. and is, or was, designated by the relevant permit authority to be an essential building service.
Record of maintenance	Maintenance record	means a written record of any maintenance conducted on a building and/or essential building services . The written record should include details of the maintenance conducted and its outcome, relevant results of any tests, identification of parts or products used, the date and time of the maintenance, updates to the maintenance schedule as a result of the maintenance conducted and the person/s who conducted the maintenance.
Maintenance schedule	Maintenance plan	means details of all essential building services and the maintenance requirements for those, where maintenance requirements include the level of performance that the essential building service must achieve to fulfil its purpose; and the frequency and type of inspection, testing and maintenance required for the essential building service .

Questions about terms and definitions

1. Do you agree that the terms listed above should have nationally consistent definitions?
 - (a) Why?
2. Do you agree with the draft definitions for the terms?
 - (a) If you do not agree, please provide details of why and how the definitions can be improved. Note the definition of ‘essential building services’ is taken from the Building Regulations 2016 (Tasmania).

Draft building manual dataset

Below is the draft dataset for the building manual. The BCR Implementation Team will use feedback on this paper to develop guidance for states and territories to implement BCR recommendation 20. States and territories could base building manual content requirements on the list below or may also use it to instead develop a list of existing approvals-related documents that capture the same information. The Team believes both approaches would achieve the intention of the recommendation, if building owners are also given guidance on how to use the building manual. States and territories could also choose to require extra information, which would be consistent with differences in approvals and disclosure processes.

The draft dataset below proposes that the building manual, at the point of occupation approval, contain certain information (where 'Yes' is marked in the column at the right). As it is based around the idea that building owners should continue to record information, some items are proposed to be added to the building manual after occupation. Stakeholders have stressed the importance that old versions of the building manual continue to be accessible to building owners e.g. a building owner should always be able to see the version of the building manual that was current at the time the occupation approval was issued.

Table 2 Draft dataset for building manuals

Building manual section	Purpose of this building manual section	Data Point	Must be in building manual at point of occupation approval?
As-built documentation	Provide information about the building. This includes approvals and certificates, copies of	Statutory Approval(s)	Yes
		Approved construction plans and associated documents, including any specifications and site reports	Yes

Building manual section	Purpose of this building manual section	Data Point	Must be in building manual at point of occupation approval?
	<p>declarations of compliance, documents associated with independent third party reviews, floor plan, elevations, site plans and Performance Solution reports. In turn, some of these documents would be supported by reports that contain additional information, such as fire safety strategies or details of how materials meet performance requirements.</p>	Third party review documentation	Yes
		All Performance Solutions including associated and referenced documentation	Yes
		Description of the building	Yes
		Detached status	Yes
		Main BCA class	Yes
		Other relevant BCA Classes	Yes
		Applicable version of NCC relevant to the building approval	Yes
		Number of sole occupancy units (if apartment building)	Yes
		Utility connections	Yes
		The building's energy efficiency compliance pathway as per the NCC and any associated energy efficiency ratings, certificates use assumptions, or assessment outcomes.	Yes
		Floor area	Yes
		Rise in storeys (as per NCC)	Yes
		Building height	Yes
		External wall material(s)	Yes
	Floor, wall and ceiling lining material(s)	Yes	

Building manual section	Purpose of this building manual section	Data Point	Must be in building manual at point of occupation approval?
		Roof cladding material(s)	Yes
		Frame material(s)	Yes
		Termite protection system(s)	Yes
Site details	Provide information about the site of the building. This includes property title(s), site maps, environmental protection orders, and heritage and environmental plans.	Site address	Yes
		Bushfire Attack Level (BAL) of property (if applicable)	Yes
		Flood/inundation prone (Yes/No)	Yes
		Cyclone prone (Yes/No)	Yes
		Termite prone (Yes/No)	Yes
		Alpine area (Yes/No)	Yes
		Landslip/coastal erosion/subsidence prone (Yes/No)	Yes
		Site area	Yes
		Environmental protection, conservation or land contamination details/actions (if applicable)	Yes
Compliance	Provide information about compliance. This includes reports from inspections or audits of the site and/or building, and details of copies of enforcement orders, records of action taken in response to enforcement orders,	Inspection records (including all mandatory inspections)	Yes
		Private building surveyor's name	Yes
		Private building surveyor's registration number	Yes
		Copies of any enforcement notices/actions relating to the building	Yes

Building manual section	Purpose of this building manual section	Data Point	Must be in building manual at point of occupation approval?
	and details of follow-up compliance activities.		
Developer and practitioner details	Provide details of developer and practitioners involved in the design, construction and building approval, whether registered or non-registered. This could include name, ABN, ACN, registration number and/or details of company directors.	Details of developer including name(s) of directors if a registered entity.	Yes
		Practitioner details (hold-all for details of registered practitioners, will be aligned with NRF).	Yes
Building management details	Provide details of building management and the responsibilities of the party/ies. This includes contracts, amendments to contracts, and governance frameworks.	Strata, facility or building management details. Could include name, ABN and/or ACN.	No
		Details of delegations related to maintenance i.e. whether strata, facility or building manager has been delegated responsibility for building maintenance and any oversight arrangements	No
Safety and maintenance details	Provide safety and maintenance information. This includes fire safety strategy, fire safety reports, annual safety reports, records of maintenance, plans and records related to renovations or repairs that do not require approvals.	Maintenance schedule	Yes
		Fire safety information, such as a strategy, reports and details of active and passive fire safety systems	Yes
		Records of maintenance of essential building services.	No
		Details of compliance inspections/certificates issued in relation to ongoing maintenance obligations through the life of the building	No

Questions about the draft dataset

3. Do you agree that the draft dataset could give building owners the information they need to maintain and operate their buildings safely?
 - (a) Why?
4. What changes can you suggest to improve the dataset (e.g. removing items that would not be helpful to building owners and other potential users of building manuals)?

Possible processes to create and use building manuals

Below are two draft models showing possible processes for creating and using building manuals. The models don't show details such as how data should be stored or accessed, as these details will not be included in the guidance developed for states and territories.

The first model centres on building surveyors. It proposes that a building surveyor:

- checks whether a building manual under legislation; and
- verifies building manuals are accurate and complete at the end of construction, as a condition of an occupation approval being issued.

The second model does not centre on building surveyors. It instead proposes that:

- each person who uploads building information is responsible for their information being accurate and complete; and
- the building owner or owners corporation checks and accepts the building manual prior to the occupation certificate being issued. This is similar to existing disclosure requirements, where building owners have responsibility for checking information that they are given.

Stakeholders have raised issues around a complete and accurate building manual as a condition of an occupation approval. Some buildings are occupied progressively, meaning residents or tenants move in as sections are completed. In these cases, owners corporations are unlikely to be formed and/or have capacity to check a building manual when a developer seeks the first occupation approval. Secondly, if owners corporations are formed, anecdotal advice is that, as they are made up of new owners, they are heavily reliant on advice provided by the developers, the strata manager and building manager appointed by the developers. This may limit their independent ability to verify the content of building manuals.

Stakeholders have advised that there must be incentives for developers and builders to meet requirements for building manuals to protect consumers, but that this has to be practical and balanced with the cost of delays to occupation approvals.

One suggestion received in relation to strata buildings is that developers should have to provide a bond of one per cent, and that this is released once the building manual is accepted by the owners corporation. This is similar to existing requirements designed to require developers to fix defective building work⁹.

Both models:

- are only suggestions for how a building manual could work so in implementing them, governments would need to consider the role of compliance and auditing activities and effective penalties;
- assume building data is added to the building manual during construction and updated if necessary. This is because some construction projects may take years to complete and stakeholders believe that “compiling” data at the end of a long construction project can lead to mistakes;
- assume that building information should continue to be recorded during the life of the building so that both information about the building as-built and information about the building as it currently stands is available; and
- potential owners should have access to the building manual.

Neither model is fully developed nor is either model proposed as being better than the other. Two models are proposed because stakeholders are split in their views on the effectiveness of oversight by building surveyors and the additional burden of responsibility it places on them.

Building surveyors have authority and significant responsibilities in overseeing building construction. Building surveyors have knowledge of building documentation, professional capacity and independent oversight of a building’s construction, including the changes that occur to a building’s design during construction. Some stakeholders believe their oversight will mean building manuals are more accurate and complete.

Other stakeholders have raised concerns that: building surveyors are already under significant pressure and would potentially face conflicts of interest to certify building manuals even if they did not meet requirements; that they do not have adequate

⁹ Under section 207 of the Strata Schemes Management Act 2015 (NSW), developers of strata schemes must give the government a bond of two per cent of the contract price for building work. This bond is intended to cover payment (up to the amount secured by the bond) for costs to rectify defective building work, if any is identified in a final report. The final report is based on a final inspection.

oversight of projects to verify documentation is accurate and complete i.e. they would not be able to tell if materials have been substituted; that it may impact their insurance premiums which are already expensive; that they do not have the ability to alter documents if they are inaccurate; and that they do not have the same incentives as building owners to check information and seek corrections if necessary. Some feedback suggests that some building owners would seek an independent check of the building manual, even if a building surveyor had verified it. Industry has also noted that some developers and builders already use systems where each person who uploads information is responsible for the accuracy and completeness of that document.

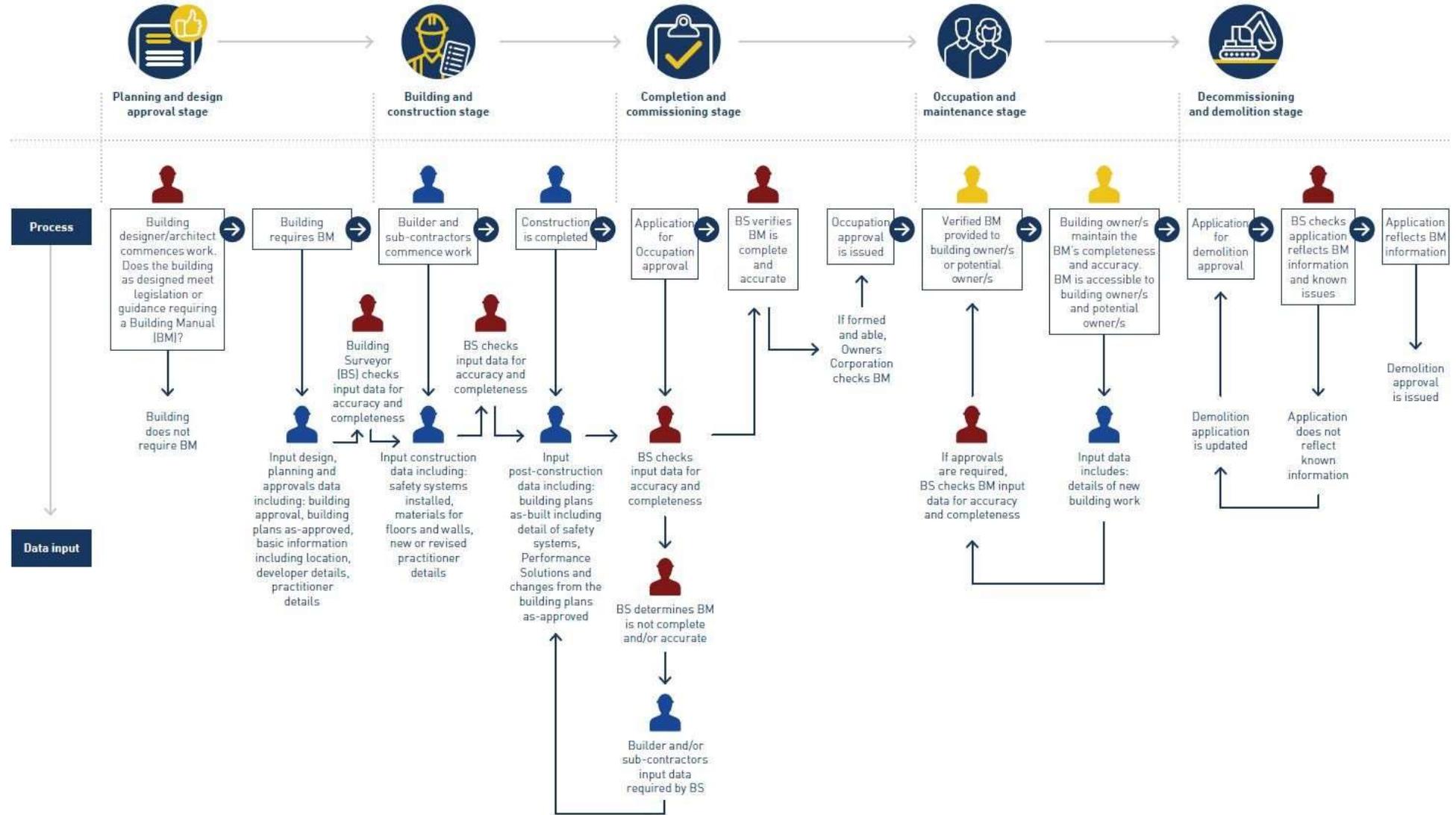
In the building surveyor-centred model, the role of overseeing and verifying the building manual could be undertaken instead by a site manager or contracted third party.

This paper proposes that building surveyors overseeing new work, building owners, or those responsible for building maintenance, such as strata or facility managers, add new building information to the building manual, when appropriate. This would ensure up-to-date information about the building and its essential services. Previous versions of the building manual, including as-built documents, would be stored and could be accessed. This aligns with feedback from stakeholders that it is useful to access information about the building at the point construction was completed, but also that up-to-date information is critical for effective management and maintenance.

Finally, some companies already create building manuals for their clients, including developers, builders and owners. The format and content of these building manuals varies greatly. It is likely that implementation of BCR recommendation 20 will vary between states and territories, with some introducing structured government-based systems for building manual storage and some only legislating the requirements for building manuals. In the second scenario, building manual companies will continue to have a role in creating manuals and this role could include updating building manuals and/or verifying content of building manuals for building owners and owners corporations. While the draft models place assume building owners have responsibility for updating manuals during occupancy, it does not mean they could not contract this work to building managers or building manual companies.

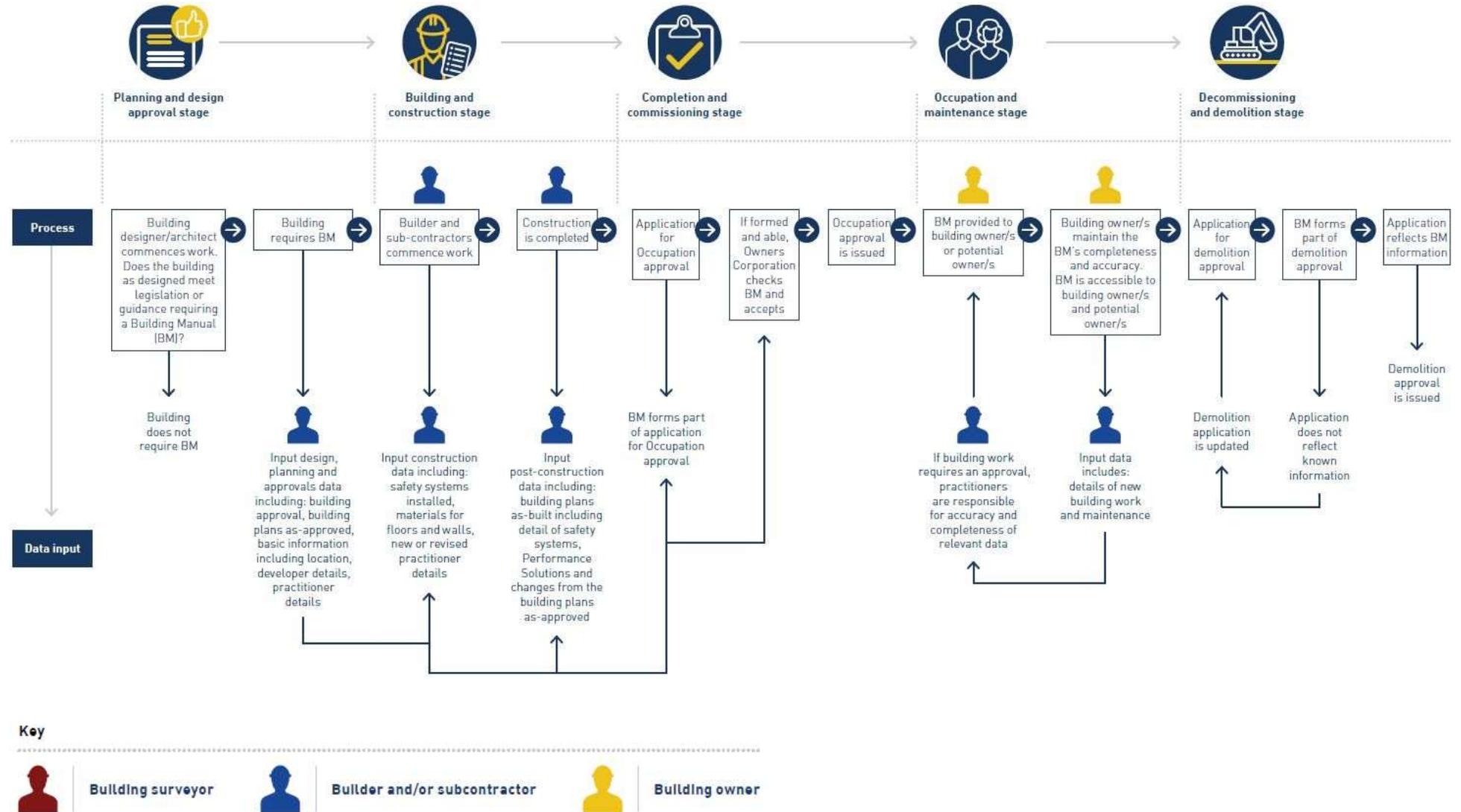
Model 1: Building surveyor-centred

Figure 1 Model showing how a building manual could be created and used with involvement of a building surveyor



Model 2: Non-building surveyor-centred

Figure 2 Model showing how a building manual could be created and used without involvement of a building surveyor



Questions about building manual processes

Creating building manuals

5. Do you believe building surveyors should have a role in verifying the content of building manuals?
 - (a) Why?
 - (b) If you don't believe building surveyors should verify the content of building manuals, who should perform this role instead (e.g. a developer, site manager or a contracted third party)?
6. Should people who create or verify the content of building manuals be subject to requirements, such as holding certain qualifications or having completed certain training?
 - (a) Why?
 - (b) What requirements would you suggest?
7. If you work in the building industry, what guidance, training and/or assistance is needed to ensure building manuals given to building owners, following construction of new buildings, are accurate and complete?
8. Do you agree occupation approvals should only be issued if there is an accurate and complete building manual?
 - (a) Why?
 - (b) If you agree, how would you address issues that may be caused by construction models that permit progressive occupation?
9. It has been suggested that for strata buildings, developers should have to provide a bond of one per cent, which is released once the building manual is accepted by the new owners corporation. Do you agree with this incentive?
 - (a) Why?
10. Other than withholding occupation approvals and bonds, what other incentives or penalties should be considered to ensure developers and builders fulfil the requirements of a building manual?
 - (a) If you agree with incentives or penalties, what conditions, if any, should states and territories consider in implementing them?
 - (b) What exemptions from incentives or penalties, if any, should be considered?
 - (c) How could the issues around progressive occupation be addressed?

Updating building manuals

11. This paper proposes that information about a building should continue to be recorded during its life. Do you agree that, provided older versions of the building manual are accessible to building owners and it is clear which version of the building manual a person is accessing, new information should continue to be added to the building manual during the life of a building?
 - (a) Why?
 - (b) If you do not agree, what other approach would you suggest?
12. What guidance, training and/or assistance is needed to ensure building owners can understand, use and maintain the information in building manuals?
13. If a building owner gives responsibility for maintenance decisions to another person, such as a building manager, should the building manager also have legal responsibility for ensuring the building manual is updated?
 - (a) Why?
14. Should there be incentives and penalties for building owners and building managers to ensure they continue to record information about buildings they own or manage?
 - (a) Why?
 - (b) What types of incentives and penalties do you believe would be effective?

Storage, format, access and ownership

The BCR recommended that the building manual is in a digital format, given to building owners and made available to successive building owners. Feedback shows stakeholders support the building manual being stored by governments and made accessible to authorised people, rather than being stored only by the current building owner or stored by a developer or builder. This will enable compliance and auditing activities by regulators and prevent building manuals being lost.

Some stakeholders believe building owners would want to store extra building information in the same place as the building manual for convenience, and believe that if governments don't have the capacity to store these extra documents, building owners will resort to downloading the building manual to their own systems to modify its contents there. This would again create building information that is not centrally accessible and which may be lost or not given to future building owners and managers. It would also mean that government records are not up to date to support compliance activities. One suggestion to address this issue is to include the building

manual in annual essential services reviews, or similar. This would mean building owners must check the master copy each year for accuracy and completeness.

Providing potential owners access to building data is in line with existing legislation requiring 'disclosure' prior to contract signature in most states and territories.

Providing access to the building manual would also support 'discovery'; the ability for a potential purchaser to discover information which may not have been shared by a gatekeeper, such as a strata manager or real estate agent.

Some stakeholder feedback highlights the need for privacy, security and intellectual property laws and impacts to be carefully examined prior to the introduction of building manuals.

Finally, some stakeholder feedback suggests that the ownership of building information created by a building manager on behalf of a building owner should be addressed in legislation. It has been suggested that building owners should be considered the legal owners of this information to eliminate confusion and to address issues around building managers failing to provide building information at the end of their contracts.

15. Do you believe the building manual should be stored by government(s), individual building owners, and/or by a service provider?
 - (a) Why?
16. Do you believe governments need to play a role in delivering building manuals or should this be left to the market?
 - (a) Why?
17. Stakeholders have commented that digital storage formats can become obsolete in a shorter time than the life of a building. Do you have any comments about the digital format of building manuals and how this issue can be addressed?
18. Under existing state and territory disclosure legislation, certain building information must be provided to potential owners prior to a contract of sale. If it is not provided or is provided late and materially impacts the potential owners, they have the right to cancel the contract. Do you agree that legislation for a building manual should contain similar provisions?
 - (a) Why?
19. Do you have any concerns about building information being available to potential buyers?
 - (a) If yes, what are your concerns?

20. Some stakeholders have suggested accurate and complete building manuals should be a condition of signing large leases e.g. for office buildings. Do you agree?
 - (a) Why?
21. Apart from privacy, security and intellectual property, what issues do you believe should be carefully considered prior to introducing building manuals?
22. Who should be considered the legal owner of information about a building?
 - (a) Why?

Types of buildings that require a building manual

The BCR recommends that Class 2 – 9 buildings should have building manuals, however some stakeholders have suggested other options. A high-level analysis of the below options is at **Appendix A**:

- Option 1: New Class 1 – 9 buildings;
- Option 2: New and existing Class 2 – 9 buildings;
- Option 3: New Class 2 – 9 buildings;
- Option 4: New Class 2, 3, 5, 6, 9a, 9b and 9c buildings with a rise in storeys of 4 or more; and
- Option 5: Buildings meeting the criteria for medium, high or very high complexity as per the complex buildings definition¹⁰. Class 1 (houses, duplexes and townhouses) and 10 buildings (non-habitable structures such as private garages and swimming pools) would be excluded.

Based on the benefits and drawbacks, the BCR Implementation Team believes Option 3, which aligns with the BCR recommendation, may be the best option and the draft dataset included in this paper aligns with this.

Requiring that new Class 2 – 9 buildings have a building manual creates a uniform requirement that is clear for building owners and developers. It is key that Class 2 apartment buildings are required to have building manuals, given the increased challenges faced by owners corporations.

¹⁰ Refer Appendix B.

By limiting a building manual to new buildings, owners of existing Class 2 – 9 buildings would not be burdened by a requirement to retrospectively collate data on their buildings. If building manuals were required for existing buildings, extra data points might be useful to owners, such as the presence of asbestos.

This paper is a starting point for discussions about setting a minimum standard for building manuals and any resulting requirements will not prevent developers or builders from voluntarily creating building manuals for buildings that are not required by law to have a building manual.

Questions about types of buildings requiring a building manual

23. Do you agree the most appropriate option is all new Class 2 – 9 buildings (Option 3)?
 - (a) Why?
24. Do you agree the same dataset could be used for all new Class 2 – 9 buildings?
 - (a) Why?

General Questions

25. Do you agree this discussion paper explains the problems caused by building owners not having access to information about their buildings?
 - (a) If you are aware of any problems that are not explained in this paper, please provide details.
26. Do you agree with the benefits of building manuals, as identified in this paper?
 - (a) Why?
27. Who do you believe will benefit from building manuals and to what extent?
28. If you are aware of any extra benefits not covered in the discussion paper, please provide details.
29. Do you believe there are drawbacks to building manuals?
 - (a) What are they and why?
30. Who do you believe will be negatively impacted by building manuals and to what extent?
31. Are there any other comments you would like to make about building manuals? Please explain.

Appendix A

Table 3 High-level analysis of types of buildings that may require a building manual

Requirement Criteria	Benefits	Drawbacks	Why this option was considered
Option 1: New Class 1 – 9 buildings	<p>Captures a broader range of residential buildings than suggested by the BCR, to support increased accountability and transparency for more consumers.</p> <p>Includes Class 1a buildings, where building owners may be more likely to renovate buildings themselves. The building manual would provide accurate and complete information to support safe building use decisions.</p> <p>Includes all Class 2 buildings, typically home to large numbers of residents and particularly vulnerable to defects because of the high rate of information asymmetry between developer and building owner.</p>	<p>Scope is broader than that specified in the BCR and costs and benefits have not been analysed as part of the Centre for International Economics' high-level macro-economic impact analysis. Further work would need to be undertaken to confirm the costs and benefits associated with building manuals for Class 1 buildings, and seek views from owners of Class 1 buildings.</p>	<p>Literature shows defects at handover are common overseas, implying the conditions contributing to defects are not unique to Australia. International literature also shows defects are common in single family dwellings.¹¹ The building manual may change practitioner behaviour that contributes to defects by increasing accountability and transparency.</p>
Option 2: New and existing	<p>Would create a requirement for existing Class 2 - 9 buildings to have building manuals, which may increase some building</p>	<p>Legislation is generally not retrospectively applied to existing buildings.</p>	<p>The BCR states the building manual should apply to Class 2 – 9 buildings but does not</p>

¹¹ Funmilayo Ebum Rotimi, John Tookey and James Olabode Rotimi, 'Evaluating Defect Reporting in New Residential Buildings in New Zealand', available at: <https://www.mdpi.com/2075-5309/5/1/39/htm>.

Requirement Criteria	Benefits	Drawbacks	Why this option was considered
Class 2 – 9 buildings	<p>owners’ access to information to ensure safe building operation decisions.</p> <p>This scope addresses issues created by the failure for building information to be transferred between strata or facility managers at the end of their contracts.</p> <p>Includes all Class 2 buildings, typically home to large numbers of residents and particularly vulnerable to defects because of the high rate of information asymmetry between developer and building owner.</p>	<p>Costs in applying the requirements to existing buildings have not been considered.</p> <p>Compiling information on existing buildings could be timely and costly and may particularly impact local governments.</p> <p>Certain information on existing buildings, such as as-built plans and approvals information, may be out of date so may require significant effort to certify it as accurate and complete for inclusion in a building manual.</p> <p>Excludes Class 1 buildings, which may include high risk installations.</p>	<p>specify whether this is limited to new buildings.</p>
Option 3: New Class 2 – 9 buildings	<p>This is the narrower interpretation of the BCR recommendation that Class 2 – 9 buildings have building manuals, and would exclude potentially high time and cost impacts of creating building manuals for existing Class 2 – 9 buildings.</p> <p>This scope addresses issues created by the failure for building information to be transferred between strata or facility managers at the end of their contracts.</p> <p>Will create a uniform requirement for building manuals to reduce confusion and increase</p>	<p>The range of buildings may be too large, for example, should low-rise, relatively simple buildings be captured i.e. factories, warehouses and carparks.</p> <p>Will not address issues with existing buildings.</p> <p>Excludes Class 1 buildings, which may include high risk installations.</p>	<p>The BCR states the building manual should apply to Class 2 – 9 buildings but does not specify whether this is limited to new buildings or the complexity of the building.</p>

Requirement Criteria	Benefits	Drawbacks	Why this option was considered
	<p>likelihood that consumers understand the importance of the building manual and its role in their investment and building operation decisions.</p> <p>Includes all Class 2 buildings, typically home to large numbers of residents and particularly vulnerable to defects because of the high rate of information asymmetry between developer and building owner.</p>		
<p>Option 4: New Class 2, 3, 5, 6, 9a, 9b and 9c buildings with a rise in storeys of 4 or more</p>	<p>This targets buildings which are used by large numbers of people, including for residential and other purposes. It would include most apartments, offices and hospitals, while excluding sole residences within Class 5 – 9 buildings, warehouse and factory buildings.</p> <p>This scope partially addresses issues created by the failure for building information to be transferred between strata or facility managers at the end of their contracts.</p>	<p>Limiting building manuals to buildings with a rise in storeys of 4 or more may mean potential buyers of some Class 2 buildings do not have access to as much, or understandable, building information. These buildings are less likely to have strata managers to make maintenance and operation decisions, so building owners are more likely to engage practitioners directly and on an ad-hoc basis. Having accurate and complete information about the building can help successive practitioners to make safe decisions.</p>	<p>This was proposed by Michael Lambert in his response to the 2019 NSW Government Building Stronger Foundations Discussion Paper.¹² The 2015 Independent Review of the Building Professionals Act 2005 proposed that Class 2 – 9 buildings require building manuals.</p>

¹² Available at: https://www.fairtrading.nsw.gov.au/_data/assets/pdf_file/0008/544364/Michael-Lambert.pdf.

Requirement Criteria	Benefits	Drawbacks	Why this option was considered
<p>Option 5: Buildings meeting the criteria for medium, high or very high complexity as per the complex buildings definition¹³. Class 1 and 10 buildings would be excluded.</p>	<p>Would limit the number of buildings requiring building manuals and only focus on those considered to be complex by definition.</p>	<p>Excludes Class 1 buildings, which may include high risk installations.</p> <p>The levels of building complexity requiring a building manual would need to be determined by Building Ministers.</p> <p>This approach may mean significantly different proportions of buildings across states and territories to have building manuals.</p> <p>May not include all Class 2 buildings, typically home to large numbers of residents and particularly vulnerable to defects because of the high rate of information asymmetry between the developer and building owner.</p> <p>Creating building manuals for non-complex buildings is unlikely to impose a significant burden and will actually provide useful information to the building owners in a usable format. The benefits for industry of not requiring building manuals for</p>	<p>Linking the building manual to complex buildings would leverage the definition of complex buildings.</p>

¹³ Refer Appendix B.

Requirement Criteria	Benefits	Drawbacks	Why this option was considered
		<p>some buildings may be limited, while impacts of lack of building information may continue to impact building owners.</p> <p>Excludes Class 1 buildings, which may include high risk installations.</p>	

Appendix B

Definition of Building Complexity – as at November 2020

Building complexity criteria are used to determine whether all or part of a *building* is low, medium, high or very high building complexity. The *building complexity criteria* are:

1. Attributes – the building is designed or constructed with any of the following sub-criteria:
 - (a) an *effective height* of more than 25 metres;
 - (b) one or more *Performance Solutions* used to demonstrate compliance with *Performance Requirements* relating to material and systems for structural safety;
 - (c) one or more *Performance Solutions* used to demonstrate compliance with *Performance Requirements* relating to material and systems for fire safety;
 - (d) in an area prone to natural disaster or adverse environmental conditions;
2. Class 2 – all or part of the *building* is *Class 2* of three or more *storeys*;
3. Occupant numbers – the *building* is to be occupied by more than 100 people determined in accordance with D1.13 (NCC Volume One);
4. Occupant characteristics – the *building* is to be occupied by more than 10 people who will require assistance to evacuate the building in an emergency;
5. Building Importance Level 4 – the *building* is determined to be *Building Importance Level 4* under B1.2a (NCC Volume One).

Low building complexity is where a *building* meets one only of *building complexity criteria* A (Attributes), B (Class 2), C (Occupant numbers), or D (Occupant characteristics).

Medium building complexity is where a *building* meets two of *building complexity criteria* A (Attributes), B (Class 2), C (Occupant numbers), or D (Occupant characteristics).

High building complexity is where a *building* meets three of *building complexity criteria* A (Attributes), B (Class 2), C (Occupant numbers), or D (Occupant characteristics).

Very high building complexity is where a building meets:

- all of *building complexity criteria* A (Attributes), B (Class 2), C (Occupant numbers), and D (Occupant characteristics); or
- building complexity criteria* E (Building Importance Level 4).

Building complexity decision process

Figure 3 Building complexity decision process

Start	Likelihood		Consequence		RISK LEVELS	
	A) Attributes	B) Class 2 ≥ 3 Storeys	C) Occupant numbers >100	D) Occupant characteristics >10	Number of A) to D)	Building Complexity Level

