



In March 2021, the Australian Building Codes Board (ABCB), through the Building Confidence Report Implementation Team, developed a discussion paper that covered the problems caused by building owners not having accurate and complete information about their buildings.

It sought views on:

- The information that should be collected in building manuals
- Where information, collected for building manuals, should be stored
- Who should oversee creation of a building manual
- Possible processes to create building manuals, and
- The types of buildings that should require a building manual.

AIRAH supports the goal of making accurate, up-to-date information about buildings available to the owners and the workers who service them. Our feedback to the discussion questions can be found below. This feedback was submitted through the ABCB consultation portal on Monday, May 17, 2021.

1. Do you agree that the terms listed above should have nationally consistent definitions?

Yes. Consistent definitions are an advantage to AIRAH members, especially those AIRAH businesses that have national operations. It also means that training and other supporting materials can be applied consistently.

2. Do you agree with the draft definitions for the terms?

Partly. It seems the definitions are focussed on “essential building services”, which has a limited definition. The purchaser or user of a property expects that all systems are maintainable and usable, so there may be merit in broadening the definition.

Building data should include:

- Any information that is required to service or maintain the systems in a building
- Information on the design intent of systems so that they can be operated most efficiently.

3. Do you agree that the draft dataset could give building owners the information they need to maintain and operate their buildings safely?

No, the draft dataset is too limited.

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)?

Other data points that could be included:

- User's manual (This is a subset of the building manual relevant to the intended user)
- Asset register
- Maintenance details for the delivery of safety, performance and efficiency
- Energy and water efficiency models demonstrating the design intent and efficiency provisions for energy and water using systems
- Metering and submetering diagrams (electricity, water)
- Energy generation (solar), design intent, as installed
- Functional description of all automation and control systems
- BMS points schedules.

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)?

We believe building surveyors are well positioned to play a role, keeping in mind that regulations such as the Design and Building Professionals Regulation 2021 in New South Wales are requiring all regulated designs to be lodged on the NSW Planning Portal. Ideally, building manuals would be synchronised with the designs in such planning portals.

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?

Yes, and AIRAH would be a willing partner for the HVAC&R sector to provide training courses developed around any platform used to manage building manuals and offered as part of CPD programs.

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?

AIRAH members would see benefit in clear materials on the expectations set for the relevant parts of the building manual. Checklists and examples of best practice will help to set a standard.

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?

AIRAH recognises that there is currently a significant market failure in the provision, storage and maintenance of building documentation. Organisations such as CIBSE through its "Soft Landings Framework" and the Green Building Council of Australia through Green Star Performance have recognised the importance of building manuals, but these efforts have not transformed the wider sector.

Manuals are seen as a trivial exercise when compared to the delivery of a building. It is therefore important that there is a proportionate incentive to ensure developers and builders complete the job by handing over complete and accurate building data.

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?

As above, AIRAH suggests that suitable incentives are required to ensure compliance.

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?

As indicated above, we believe that this significant change will be best effected using a step-by-step approach, with the support of a consultation-informed framework.

Training and information will be key to having building data supplied to owners. AIRAH is prepared to support the roll out these requirements.

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?

We agree that new information should continue to be added to the building manual during the life of a building. From an HVAC&R and building services point of view, it will facilitate better maintenance regimes and improved building performance.

Appendix C of AIRAH's DA19 – HVAC&R Maintenance manual offers a detailed description of operations and maintenance manuals, their purpose and requirement to be maintained. Figure 2.5 in the same manual shows how O&M manuals should be developed through the life of the building design:

12. What guidance, training and/or assistance is needed to ensure building owners can understand, use and maintain the information in building manuals?

We believe that given the specialised and detailed nature of the building manuals, it will still be necessary for building owners to rely on service providers and outsourced building management to interpret and explain the information.

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?

Yes. The maintenance of building information not only allows for efficient maintenance of a property over time, it is essential to maintain the safety of the property. The building manager should make it part of any service/maintenance agreement that trades maintain the relevant section of the building manual.

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?

Where systems are related to safety, yes.

As a first step, we believe building owners need to be educated about the importance of building manuals and the benefit (versus cost) of maintaining them.

15. Do you believe the building manual should be stored by government(s), individual building owners, and/or by a service provider? (a) Why?

We believe that a central storage platform offers a variety of benefits to AIRAH members, including ease of access and consistency in maintaining information.

It seems through the discussion paper that the building manual is envisaged as a hard-copy document. Consideration should be given to electronic storage that is searchable, and consistent with BIM and other packages that are now common across the industry, as long as the intended users of the information have access to the tools that give them access.

Central storage guarantees uniformity of information. It would allow links to systems that may be established for lodgement of registered designs (such as the NSW Planning Portal mentioned above). And it would provide an excellent resource for identifying opportunities for improving building stock, and modelling the impact of any changes to legislation.

16. Do you believe governments need to play a role in delivering building manuals or should this be left to the market? (a) Why?

It is clear there is market failure in the provision and maintenance of building manuals. They are essential to ensure that the purpose of a building is achieved, critical to ensuring economically efficient maintenance, and critical to ensuring the building can be operated efficiently. This market failure justifies government playing a strong role in helping to deliver building manuals.

As detailed above, we believe a central system for storing building manuals offers a variety of benefits.

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?

No.

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?

AIRAH is not expert in the design of the appropriate incentives/regulations/penalties, but suggests that given the market failure and the motivations of actors at the point of building delivery, careful consideration needs to be given to ensuring that building manuals are provided.

19. Do you have any concerns about building information being available to potential buyers? (a) If yes, what are your concerns?

No.

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?

AIRAH doesn't have a view on this point apart from noting that fit-out works for sophisticated tenancies should be complete with their own building manual.

21. Apart from privacy, security and intellectual property, what issues do you believe should be carefully considered prior to introducing building manuals?

Please see final comments.

22. Who should be considered the legal owner of information about a building? (a) Why?

No comment.

23. Do you agree the most appropriate option is all new Class 2 – 9 buildings (Option 3)? (a) Why?

Yes, we believe building manuals could be applied to all of these building classes.

24. Do you agree the same dataset could be used for all new Class 2 – 9 buildings? (a) Why?

We believe there should be some flexibility for different building classes.

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.

Yes.

26. Do you agree with the benefits of building manuals, as identified in this paper? (a) Why?

Yes. AIRAH members are called on to service increasingly complex systems, and without manuals there are significant costs involved in the surveying and documenting systems so that appropriate maintenance activities and schedules can be developed. These costs are sometimes covered by the owner, but just as often carried as an overhead by the maintenance company. Either way this is a significant inefficiency across the economy. Similarly, the time to conduct a service and potentially allow for business continuity is directly affected by the availability of building data.

As indicated in the Building Confidence Report, building manuals are likely to improve operational decision-making, reducing defects that are due to incorrect or inadequate maintenance. This is especially true in the HVAC&R and building services space.

27. Who do you believe will benefit from building manuals and to what extent?

AIRAH members will benefit from the requirement to hold accurate building data. Many of our members already provide appropriate information; regulation will level the playing field ensuring that all participants in the delivery and maintenance of buildings are providing, at the building data level, a consistent level of service.

Building owners benefit from better, faster service and the elimination of inefficiencies that occur from the lack of building information. Commercial building tenants benefit from better delivery of services and higher amenity of property.

28. If you are aware of any extra benefits not covered in the discussion paper, please provide details.

No further comments.

29. Do you believe there are drawbacks to building manuals? (a) What are they and why?

See final comments below.

30. Who do you believe will be negatively impacted by building manuals and to what extent?

Market participants that lack the requisite skills to create useful building manuals will suffer if there are penalties applied for a failure to generate manuals of the requisite quality. They will be encouraged to develop or acquire the required skills.

31. Are there any other comments you would like to make about building manuals? Please explain.

The Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH) appreciates the opportunity to provide feedback on this discussion paper.

AIRAH is Australia's peak membership body for professionals and practitioners working in the heating, ventilation, air conditioning and refrigeration (HVAC&R) industry – a hidden, yet innovative industry that is worth \$38 billion, uses more than 24 per cent of Australia's electricity and accounts for 11.5 per cent of our carbon dioxide emissions. It also employs over 298,000 people, many of whom work on buildings that would potentially require building manuals.

AIRAH supports the goal of making accurate, up-to-date information about buildings available to the owners and the workers who service them. In order to achieve this goal, it is important to acknowledge current practice so we can better understand how to get from A to B.

In the essential safety systems compliance space, the basic compliance regime sits with the states (annual Form 15s etc.). As things stand, there is significant variance across jurisdictions in terms of the actual requirements. Moreover, the requirement for record keeping relates mainly to certifying attendance, and not actual proven functionality. This would represent a large and complex shift.

Additionally, the requirement for this information transfer is not adequately stipulated in the NCC, and we do not believe this is likely to change.

Beyond essential safety systems and into design and as-constructed records, as well as enduring and updated records (as-installed), these are seldom found in our industry. Information is “contractually” transferred from the design and construction process – including as-installed documentation, O&M manuals and now BIM models – but it is mostly unregulated, unverified and, from handover, generally unmaintained.

Many building owners do not recognise the potential benefit of having accurate records and documentation, or the disbenefits of the opposite. By and large they do not have budgets or processes for keeping records up to date. Service providers often price in the risk of not having accurate documentation, raising costs for all.

Even in the current regulatory environment where accurate and complete baseline data is required in most jurisdictions for compliance with essential safety systems requirements, the existence of this information is very much the exception.

In short, and as mentioned in the answers above, there is significant market failure. AIRAH supports a consultation process to create a framework and define a step-by-step approach towards implementing a building manuals mechanism with a balance of regulatory reform (enablement and motivation) and education and incentives (a way to invest in enabling technology and produce a return).

AIRAH is prepared to be an active participant in the development of this initiative, and look forward to the next steps. We will also continue promoting the efforts of the ABCB to address the issues and restore confidence in Australia’s building and construction industry.