

CPD Webinar series

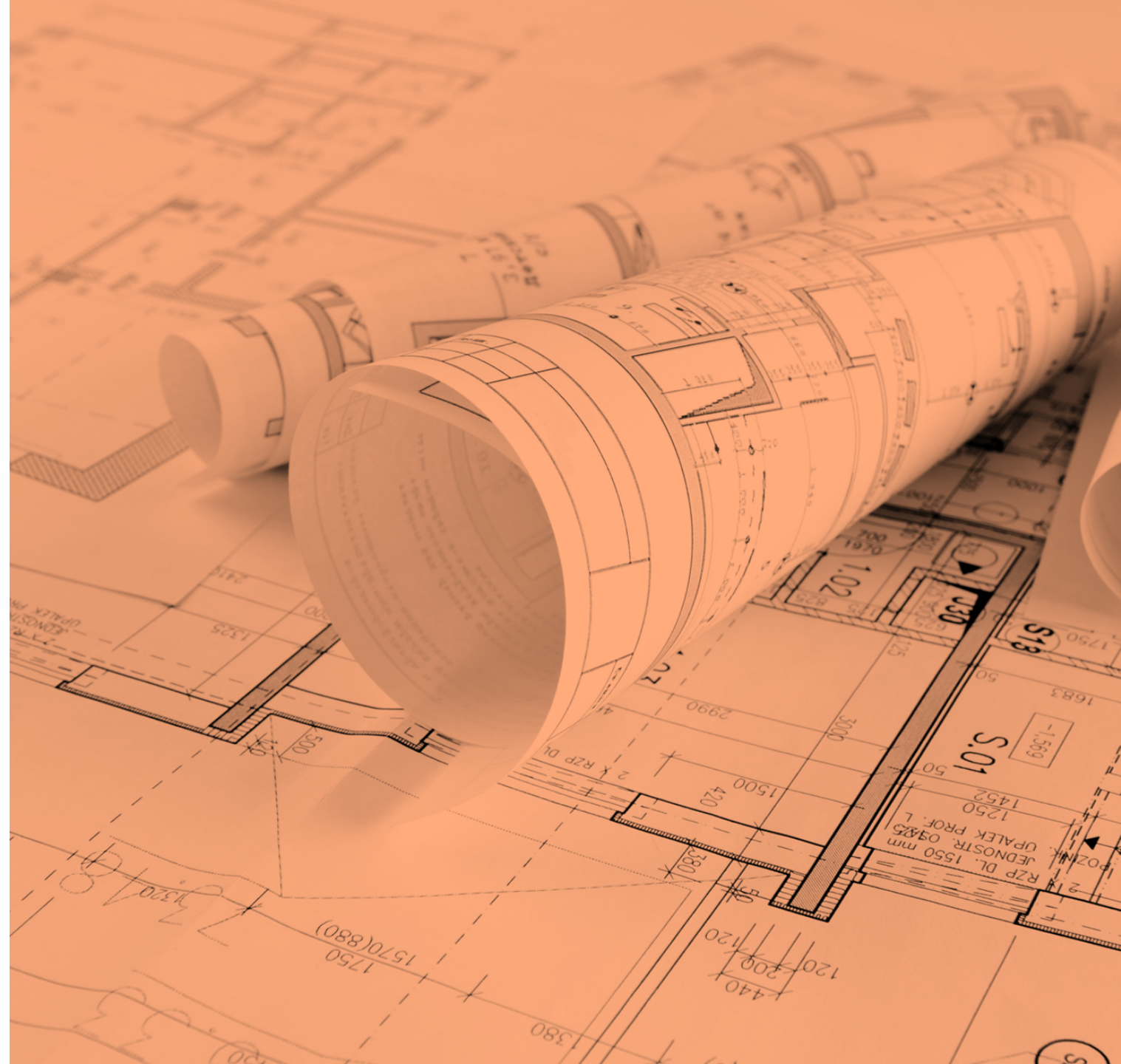
Modern Methods of Construction

Speaker | **Frances Hall**
Weir Legal & Consulting

ārbv



Architects
Registration Board
of Victoria



Acknowledgment of Traditional Owners

This presentation is being delivered on the lands of the Wurundjeri People and I wish to acknowledge them as Traditional Owners.

I would also like to pay my respects to their Elders, past and present, and Aboriginal Elders of other communities who may be here today.

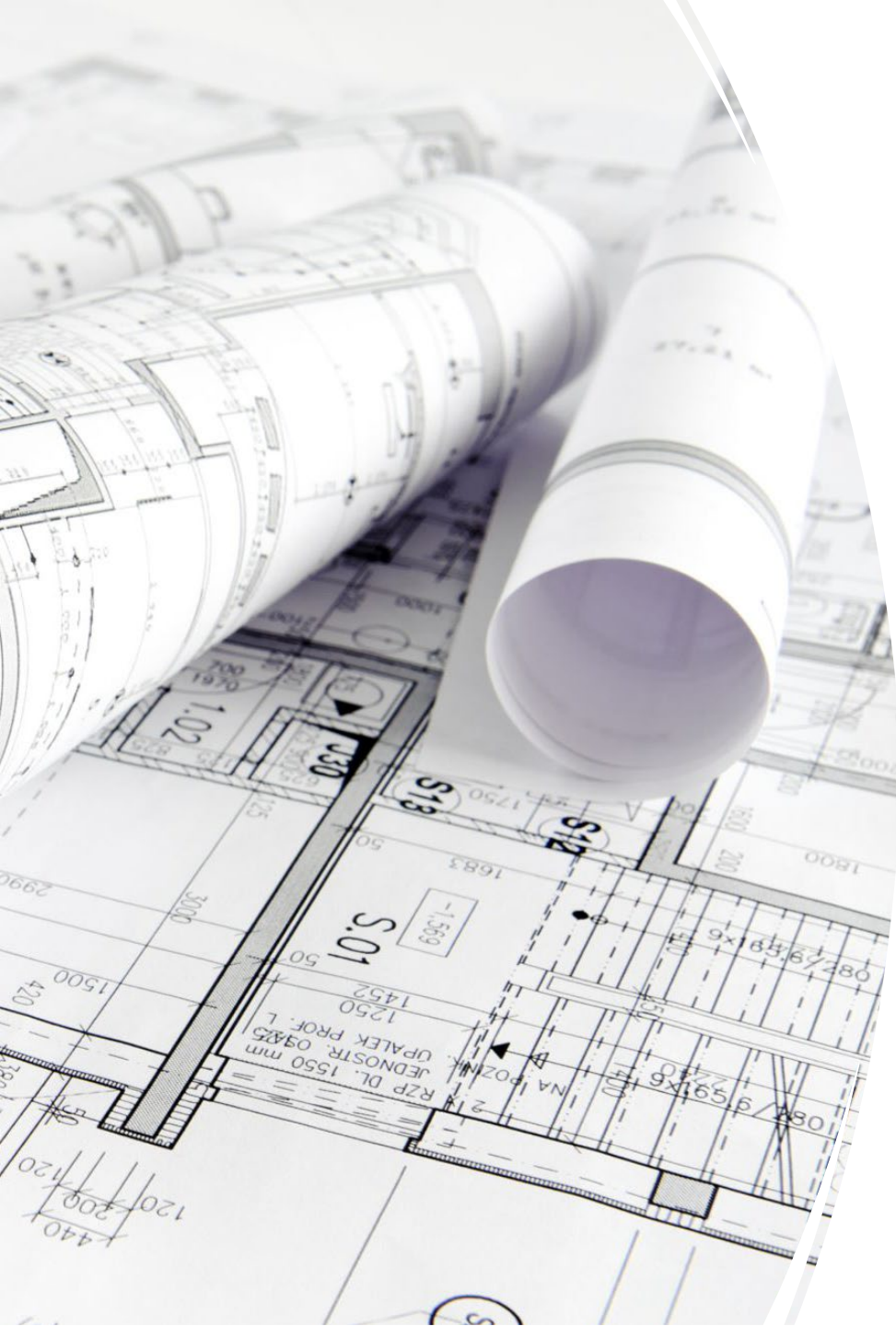


CPD Questionnaire

- Attending this webinar live and submitting this form will qualify you for 1 hour formal CPD.
- Certificates will be sent to the email address used to complete this form, please ensure your name and contact details are correct.
- This form will close 24 hours after the webinar has commenced.
- Certificates will be issued within 1 week of the closure of the quiz.
- <https://forms.office.com/r/bVaLJk4Qxz>

ARBV Webinar: Modern Methods
of Construction



A close-up photograph of architectural blueprints spread out on a surface. A white, rolled-up tube, likely for a pen or pencil, lies diagonally across the blueprints. The blueprints show various technical drawings, including floor plans and sections, with dimensions and labels like 'S.01', 'S.02', 'S.03', and 'S.04'.

Outline

- What is MMC?
- Why are we talking about it?
- How is it regulated in Victoria?
- Where are the regulatory gaps and what risks do they pose?
- What is an architect's role when utilising MMC in a design or administering a contract?
- What are the risks for architects and how to mitigate them
- Upcoming reform in Victoria

What is MMC?

‘Modern Methods of Construction’

Is a catch-all term, not a defined term from legislation

Refers to offsite or automated construction:

Prefabrication

Modular or volumetric construction

Offsite construction of component parts or systems e.g. wall systems

3D printing or other robotics

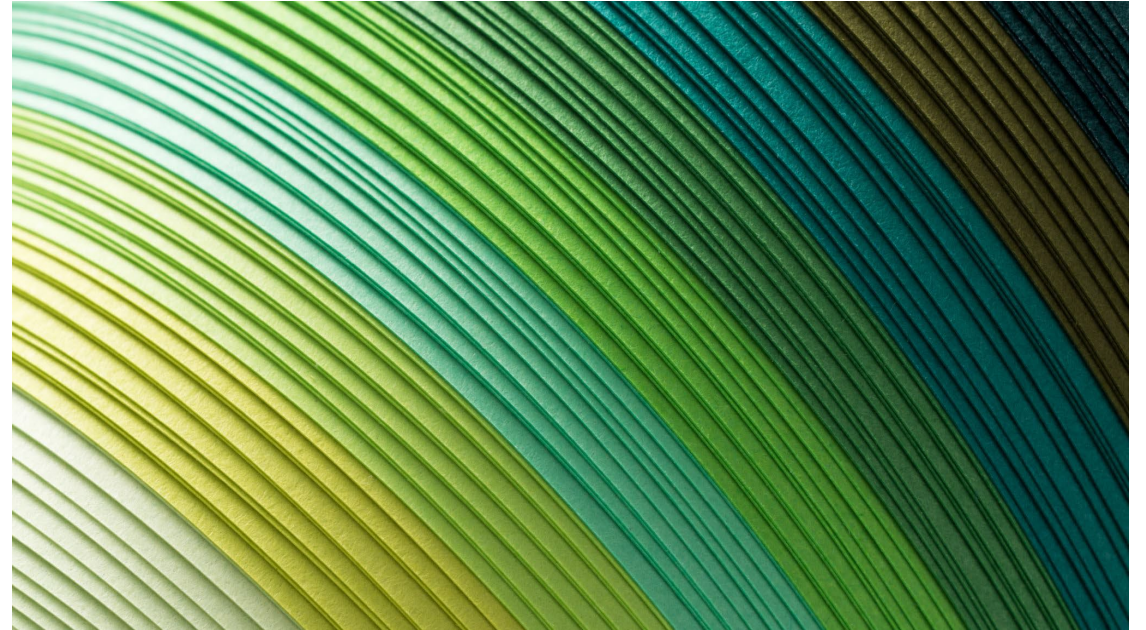
Potential advantages of MMC

Reduced length of build

Reduced cost

Improved precision, quality control

Potentially lower carbon footprint



Why are we talking about MMC now?



Offsite construction is not new:

- Precast concrete panels and prefabricated buildings used since early 20th century
- Roof trusses manufactured offsite
- Light gauge steel framing



Productivity Commission findings Feb 2025:

Housing crisis – 1.2m homes
needed over 5 years

Housing construction productivity
is falling – longer build times

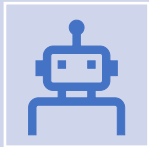
Quality of construction is
increasing but innovation is slow

Manufacturers are much faster to
innovate than builders

Currently only 5% of construction
occurs via MMC.



Factors inhibiting take-up of MMC



High fragmentation in construction sector – most businesses are small or individuals



Regulation has not kept pace:

NCC
Building Act



Perception of consumers re MMC has been negative:

Durability
Quality
Aesthetic

Changes under way

At National and State level, governments are seeking ways to increase speed of construction

Prefab sector are creating peak bodies, collectively pushing for reform, achieving scale in their production capacity

Changes in consumer sentiment



Question 1

What has prompted the need for reform relating to MMC?

- a) The need to increase housing stocks quickly
- b) Confusion about what it means
- c) The lack of reference to it in the NCC or the Building Act
- d) All of the above

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Regulatory issues

Signature

Date

Regulation of building work in Victoria



MMC issues in the current regulatory landscape

Building permit stage:

- Approval of product use, certifications, performance solutions
- Specified inspection stages

During building work:

- How and where to carry out inspections
- What documents to rely on

Other issues:

- Progress payments
- Insolvency (no insurance)
- Registration/licensing of workers

Documents to be relied on in building work

- s24(1) Building Act – RBS cannot issue a permit unless they can be satisfied that the work will comply with the Act and the Regs
- This means that an application for a building permit must include docs demonstrating how the building work will comply, which may include:
 - Detailed building drawings
 - Engineering drawings
 - Certifications from engineers
 - Fire Engineering report
 - Performance solutions



Question 2

When can compliance of an MMC product, system or method be approved?

- a) It must be approved at building permit stage;
- b) It can be included at any stage so long as there is appropriate documentation for it
- c) It can be approved at occupancy permit stage so long as there is appropriate documentation for it

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NCC compliance methods

A building design must comply with the performance requirements in the NCC

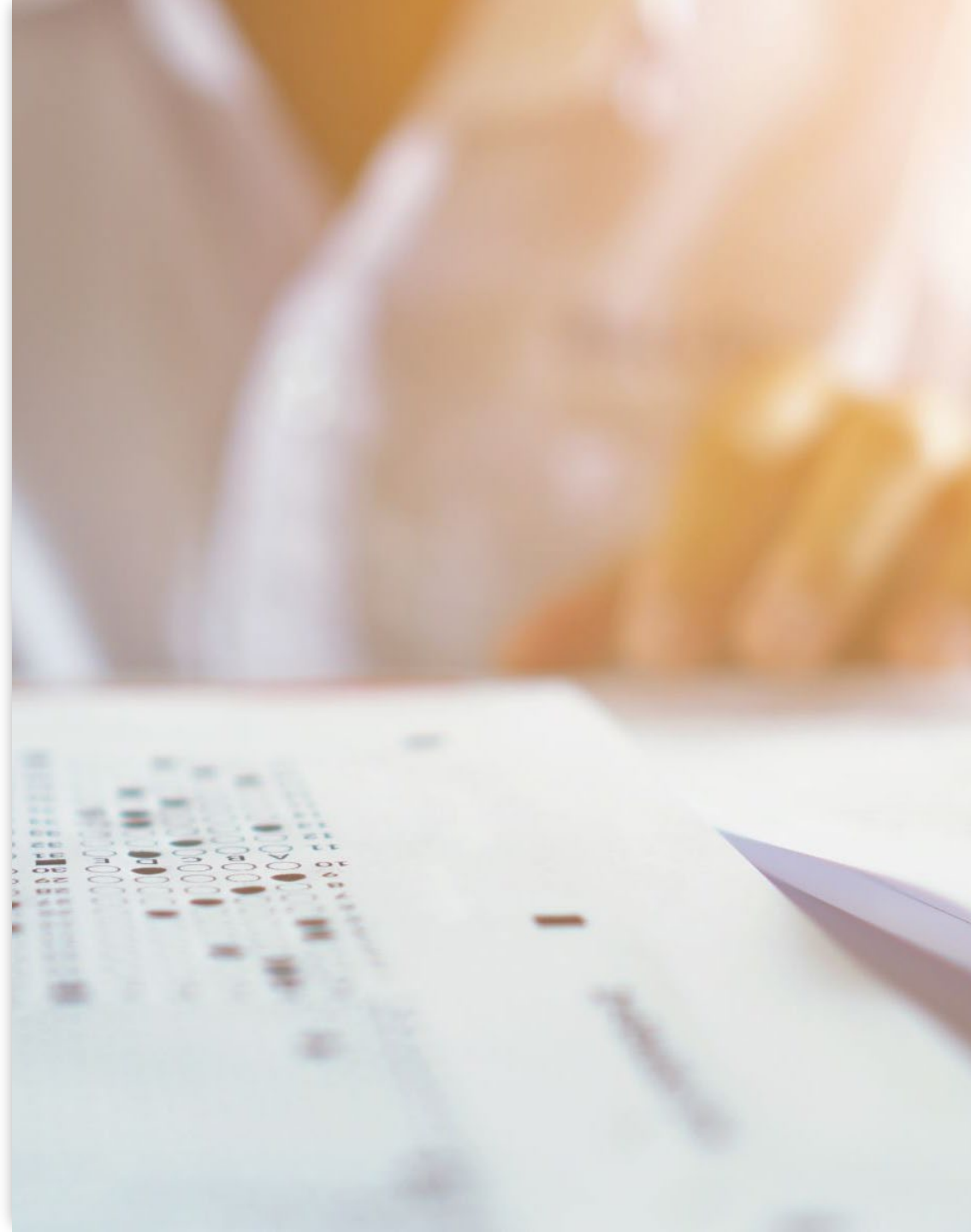
Either Deemed to Satisfy or Performance Solution

This doesn't mean that every product or method used must demonstrate compliance

Required where the product or method is relevant to the satisfaction of the performance requirement

Evidence of suitability pathways

- Codemark/Watermark
- Certificate of Accreditation (BRAC)
- Certificate from a certification body
- Test report from an accredited testing laboratory
- Certificate from a professional engineer or other qualified person
- Product technical statement



What does this mean for MMC construction methods or building elements?

- Where relevant to a performance requirement the RBS will need to be satisfied of compliance
- Can meet DTS - need complete detailed design drawings and set of documents showing product compliance
- A standalone building product might get certification – harder for an entire module or pod which is fabricated offsite but comprises many different components
- Bathroom pods – ABCVB direction 2016/4.0 on Watermark Certification directs that bathroom pods are a product and can get Watermark Certification



Compliance issues

- Same issues arise as with any bespoke design:
 - Designs must be sufficiently detailed to clearly show how compliance will be achieved
 - Certificates must be current and apply to the proposed use
 - Where a product is imported compliance still needs to be proved
 - Depending on what is being imported, may require:
 - Detailed design review
 - Assessment of all materials used
 - Inspection regime



Question 3

How can a system, product or building made off-site be verified for compliance for the purpose of inclusion in a building design?

- a) A performance solution is required for it
- b) Documentation must be provided that verifies compliance via one of the pathways in the NCC
- c) The RBS can approve it as part of the building permit documentation
- d) These systems or products can't be verified for compliance

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Mandatory inspections



Inspection stages

A building permit is required to set out mandatory inspection stages for the building work

The Building Regulations prescribe some mandatory stages, depending on the type of building work

The relevant building surveyor has discretion to add more stages

Work may be completed offsite that doesn't match the stages in the building permit

How are inspections carried out for MMC?

- How to inspect when some or all of the work is completed off-site in a factory?
- Inspections may need to be carried out offsite, depending on the type of MMC involved.
- May need additional inspections prior to concealment
- Can't reasonably inspect on-site where walls are covered etc.
- Building surveyor needs to consider how and when inspections are to be carried out so that inspections are carried out:
 - At mandated inspection stages whether or not the work is on site
 - On site to ensure that on site assembly or installation is correct

Progress Payments

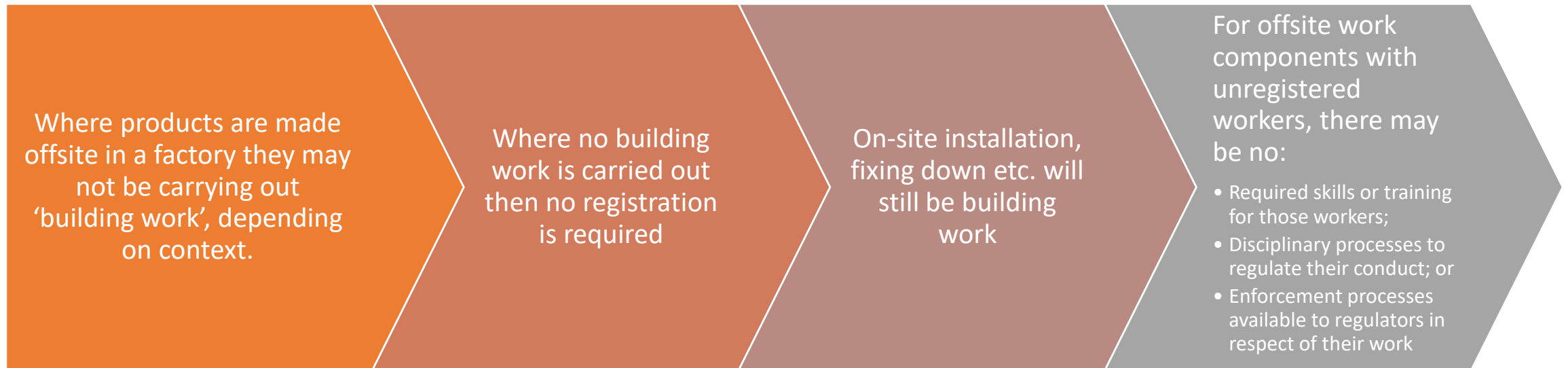
- For domestic building work, progress payments are controlled by the provisions of the Domestic Building Contracts Act
- Stage payments must not exceed specified percentages of the total contract price
- For other work the contract will specify the payment schedule
- Where large volumes of work are completed off site then large payments may be required which don't match the stages reached under the DBCA
- Changes to DBCA, but have not yet taken effect

Insurance and insolvencies

Where the work is carried out offsite and not by a registered builder there will be no domestic building insurance available

If the manufacturer becomes insolvent, no recourse to DBI

Registration of workers





Question 4

How can work carried out off-site be verified for compliance?

- a) Via mandatory inspections
- b) Reliance on the manufacturers QA process
- c) Reliance on design documentation
- d) Assessing compliance once installed on site

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Issues and risks for architects

Design stage

- Level of detail required to demonstrate compliance per s24 Building Act
- Is a performance solution required?

Contract administration stage:

- Progress payments in contract need to reflect DBCA
- Identification of defects

Risk mitigation at design stage

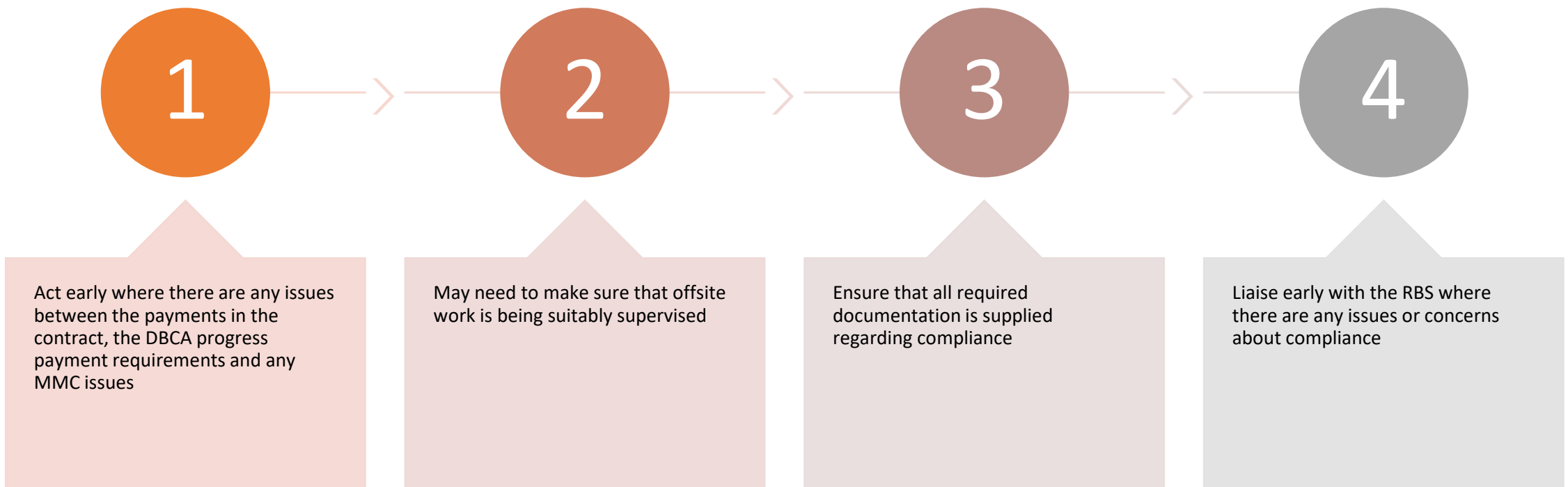
Ensuring design is as detailed and complete as possible

Where scope of work is limited or D&C is used, make clear that additions or alternations must be compliant

Design coordination between architects and engineers

Raise queries with the RBS

Risk mitigation at contract administration stage





Question 5

What step can architects take to address the gaps in the regulatory framework for MMC?

- a) Avoid using it in projects
- b) Exclude liability in contracts where MMC is incorporated into the design
- c) Put the manufacturer's product information into the design documentation
- d) Ensure design documentation is full and complete and addresses compliance of products or methods via NCC suitability pathways



Reforms on the horizon



Victorian based reforms:

Reform to Domestic Building Contracts Act 1985 passed in September this year

DBCA has regulated the amounts claimable as progress payments

Amendments will allow differentiation of progress payments depending on what proportion of the building work is MMC

Percentage will be put into the new DBC Regulations – not issued yet

Reforms are yet to take effect



Further agenda for Victorian reform



DTP discussion paper – 3 areas for potential reform:

- Product certification
- Manufacturer certification
- Integration into existing building consent pathway

Public consultation process mid year

Likely to be legislative reform within the next year or two given the impetus to increase the volume of housing construction



Commercial changes

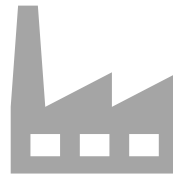
- Difficulty in uptake of MMC has been finance and insurance
- No legislative changes but:
 - New finance products that recognise MMC e.g. CBA
 - Financiers and insurers likely to adapt once DBCA changes take effect



National reforms



National Housing Accord 2025 committed to reducing regulatory barriers to MMC



2025 ABCB issues paper on manufacturer certification



ABCB consultation on:

National Voluntary Certification Scheme
Consistent MMC definitions for the NCC



Question 6:

What are the problems with MMC that Victorian legislative reform will seek to address?

- a) Speed of building approvals
- b) Consumer perception of the products
- c) Certification of products and inspections regime
- d) Difficulties in obtaining finance

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Useful guidance:

- ABCB handbooks to assist with MMC:
 - Prefabricated, modular and off-site construction handbook
 - Evidence of suitability handbook
 - Performance Solution Process handbook

<https://www.abcb.gov.au/initiatives/prefabricated-modular-and-offsite-construction>

Any questions?

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