Building Smarter, Faster, Better for South Australia's Future: Modern Methods of Construction

A design-led strategy for housing, productivity, and sustainability through innovation in construction.

Context and Vision

South Australia faces increasing pressure to deliver high-quality, affordable housing while meeting climate, productivity, and workforce challenges. Modern Methods of Construction (MMC) — including modular, prefabricated, and digitally enabled processes — represent a transformative opportunity to build smarter, faster, and better. However, the success of these methods depends on design leadership, early collaboration, and strong regulatory alignment.

The Australian Building Codes Board (ABCB) defines MMC as processes that improve the efficiency, quality, and sustainability of construction through technology, off-site fabrication, and design integration. When implemented strategically, MMC can reduce construction time and waste, lower embodied carbon, and support precision manufacturing in regional and metropolitan settings.

The Australian Institute of Architects (SA Chapter) supports government leadership in enabling MMC adoption through design-led policy. Architects play a critical role in ensuring that modular and prefabricated systems deliver enduring, flexible, and high-performing buildings — not just faster outcomes. MMC must complement, not compromise, design quality, sustainability, and community benefit.

This statement aligns with the Institute's complimentary policy advocacy on Housing Supply and Diversity and AI and the Future of Design, reinforcing the shared goals of quality, sustainability, and innovation across the built environment.

Why It Matters

Housing Supply and Affordability:
MMC can significantly increase housing delivery capacity, helping South Australia meet growing demand while improving affordability. Standardised components, digital fabrication, and design integration reduce costs and timeframes without sacrificing liveability or quality.

Sustainability and Climate Goals:
By minimising waste, reducing embodied carbon, and enabling circular construction systems, MMC supports South Australia's transition to a low-carbon economy. Design-led MMC

solutions ensure materials are used efficiently, components are reused wherever possible, and buildings perform sustainably over time.

Regional Development and Workforce Opportunities:
Manufacturing-led construction supports regional economies through distributed production facilities, skills training, and high-value employment. South Australia's *Tonsley Technical College* — located within the Tonsley Innovation District — exemplifies how education, industry, and government collaboration can advance MMC skills development and training in building and construction. Similarly, the State Government's recent *modular housing program* to deliver 120 prefabricated homes demonstrates how MMC can boost housing supply, regional jobs, and local manufacturing capacity.

Digital Innovation and Productivity:
Linking MMC with digital design tools and artificial intelligence enables smarter decision-making across the construction lifecycle. AI-assisted design coordination, precision fabrication, and digital twins can improve safety, productivity, and long-term building performance.

Quality, Safety, and Accountability:
Architects provide essential oversight to ensure design integrity, code compliance, and occupant safety. Design-led MMC reduces defects, enhances resilience, and ensures buildings respond to local climate, context, and community needs.

The Institute's Position

The Australian Institute of Architects (SA Chapter) calls on all political parties to commit to a design-led, collaborative approach to Modern Methods of Construction. South Australia can lead nationally by linking design excellence with manufacturing innovation to deliver affordable, sustainable, and high-quality buildings.

Architects must be integral to MMC's evolution — ensuring design integrity, safety, and sustainability are embedded at every stage. By fostering collaboration between designers, builders, researchers, and industry, South Australia can build a construction sector that is both innovative and resilient.

Recommendations and Key Actions

Recommendation 1: Develop a South Australian MMC Policy Framework

Establish a coordinated framework to integrate MMC across housing, infrastructure and industry development.
Key actions include forming an MMC Advisory Taskforce led by DIT with ODASA and the Institute; reviewing planning, procurement and compliance barriers; aligning MMC standards with the NCC and the ABCB MMC Framework; piloting design-led MMC projects in social,

regional and educational housing; and embedding MMC principles into state procurement and building approvals to ensure consistency, safety and quality.

Potential Partners: DIT, ODASA, ABCB, Housing SA, Green Industries SA, AIA SA Chapter.

Recommendation 2: Foster Research, Education and Industry Capability

Build statewide capability in MMC design, manufacturing, and delivery through coordinated investment in training, research and industry collaboration.
Key actions include partnering with universities, TAFEs and industry to deliver MMC-focused education and professional development; supporting initiatives such as Tonsley Technical College and the Modular Schools program; establishing an MMC Knowledge Hub to connect research and practice; advancing research in sustainable materials, digital integration and modular performance; strengthening links between education providers and manufacturers; and progressing toward a permanent Centre for Construction Innovation and Design Excellence.

Potential Partners: DIT, DIIS, Green Industries SA, Adelaide University, Flinders University, TAFE SA, ABCB, HIA.

Recommendation 3: Embed Design Leadership in MMC Delivery

Ensure that architects and design professionals lead the adoption of MMC to guarantee high-quality, adaptable and sustainable outcomes.
Key actions include integrating architectural oversight into all government-funded MMC projects; embedding design excellence and sustainability criteria in procurement; developing model design briefs that demonstrate best practice in modular and prefabricated architecture; supporting interdisciplinary teams that combine architects, engineers and manufacturers; and establishing design leadership roles within MMC industry standards and certification processes.

Potential Partners: ODASA, RAIA (SA Chapter), DIT, DIIS, ABCB, Master Builders SA, Engineers Australia.

Recommendation 4: Reform Approvals, Procurement and Finance to Enable MMC

Create clear, streamlined pathways that reduce risk, improve quality and accelerate MMC adoption across public and private projects.
Key actions include introducing fast-track approvals for precertified modules and panelised systems; updating procurement rules to allow outcome-based specifications, early design involvement and design-led evaluation; piloting off-site milestone payment structures and supporting SME manufacturers through project bank accounts; issuing Treasury guidance on financing and asset valuation for modular buildings; establishing a state precertification register with digital product passports; publishing model contract clauses for MMC; developing fit-for-purpose insurance and warranty frameworks; embedding MMC pathways in Treasurer's Instructions and Procurement SA policy; and creating a revolving manufacturing finance or guarantee facility to scale South Australian MMC capability.

Potential Partners: DIT, PLUS/State Planning Commission, ODASA, Housing SA, DTF, SAFA, Procurement SA, LGA SA, AIA SA Chapter.

Conclusion

Modern Methods of Construction offer South Australia the opportunity to redefine how it builds — faster, smarter, and more sustainably. By embedding design leadership, investing in capability, and aligning MMC with digital innovation and climate goals, the State can achieve its housing and sustainability targets while creating long-term social and economic value.

This statement complements the Institute's broader advocacy platform on Housing Supply and Diversity, AI and the Future of Design, and Cultural Policy, reinforcing the essential role of architecture in shaping South Australia's sustainable and creative future.

Legend of Acronyms

ABCB — Australian Building Codes Board
DEW — Department of Employment and Workforce Relations
DIIS — Department for Industry, Innovation and Science
DIT — Department of Infrastructure and Transport
DTF — Department of Treasury and Finance
HIA — Housing Industry Association
LGA — Local Government Association of South Australia
MMC — Modern Methods of Construction
NCC — National Construction Code
ODASA — Office for Design and Architecture (SA)
RAIA — Royal Australian Institute of Architects
SAFA — South Australian Financing Authority
TAFE — Technical and Further Education

References and Resources

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