

## Bradfield's First Building Case Study – Western Parkland City Authority



- The Western Parkland City Authority (WPCA) are building Australia's newest city – Bradfield City Centre – on the doorstep of the new 24/7 Western Sydney International airport.
- Bradfield City Centre's First Building will house the first stage of the Advanced Manufacturing Research Facility (AMRF), an Advanced Industry Hub, and a visitor experience centre.
- Due to open in 2024, it is the start of a new innovation and research ecosystem in Western Sydney.
- The WPCA team worked with local First Nations planners, architects, and designers to design a building that respected Country and promotes the local First Nations (Dharug) communities, their culture, and obligations for Country.
- The First Building will exemplify the core characteristics of the future city, including design quality, sustainability, and community resilience. It is planned to be net zero at opening and embodies circular economy principles:
  - o Targeting 6-star Green Star rating to demonstrate our commitment to sustainability and resilience.
  - o Using passive design methods of construction that take advantage of the local climate to reduce energy use for lighting and cooling and provide thermal comfort with minimal energy use.
  - o Integration of PV panels on the green roof and the deployment of batteries will maximise on-site renewable energy generation and efficient energy use.

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- o The green roof will have a native pallet and be linked to the building's integrated water management features.
- o Main building materials include:
  - responsibly sourced cross-laminated timber and steel
  - low-carbon green star rated concrete
  - rammed earth from local materials to reduce embodied carbon in the structure
- o Designed as a modular structure using pre-fabricated components to reduce construction waste and reduce whole of life embodied carbon.
- o The modular nature of the building makes it adaptable, and it can be expanded in the future or repurposed for a new function.
- o Designed for disassembly, so that the materials can easily be reused, giving them a second life and preventing materials from going to landfill.
- For more information about Bradfield City Centre, visit [www.wpca.sydney](http://www.wpca.sydney)



Artist's impression of Bradfield City Centre's First Building. Image: Hassell