

CASE STUDY

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WOODLANDS HOUSE, SOUTHERN HIGHLANDS, NSW

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ARCHITECTURE AND DESIGN: AO Design Studio

BUILDER: Burlace Construction (Main House) + Quay3 Constructions (Pool Pavilion)

PRODUCT: AWS fabricator; Millennium Windows and Doors incorporating Elevate Series 424 Double Glazed CentreGLAZE™ Fixed Highlights and Vantage Series 618 MAGNUM™ Sliding Doors





BACKGROUND

Nestled amongst the peaceful Nattai National Park, the Woodlands House is a sublime dwelling where architectural ingenuity, environmental responsibility and the serenity of nature converge to celebrate the gentle juxtaposition of past and present.

Conceived by AO Design Studio as a spacious, light-filled retreat for a family transitioning from the bustling, sun-soaked Bondi, this modern home embodies the occupants' newfound love for Southern Highlands, respectfully grounding their needs and comforts within the tranquil setting and architectural context of this stunning locale.

Building on the heritage of the 1970s brick homestead, the architect created an enduring home that seamlessly fuses the existing structure with a contemporary addition through a harmonious interplay of simple forms and refined lines that maximise the beautiful northern outlook, and establish an unimposing dialogue with its surroundings.

CHALLENGE

Tony O'Meara, the architect behind the project, was committed to a sustainable approach that favoured transformation over demolition. "There was so much embodied energy in the existing house," Tony explains. "To just knock it down and build something new wouldn't be a very sustainable way to build. It's so much better to work with what's already there, and really transform how the house performs."

Additionally, the design needed to embrace the surrounding landscape while ensuring the clients, accustomed to a milder climate, would remain comfortable throughout the colder highland winters.

The site's location in a high bushfire risk area also posed a challenge, necessitating the careful selection of materials to ensure the safety and resilience of the home.

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SOLUTION

Tony's solution was a masterpiece of passive solar design. A thoughtfully angled skillion roof, with carefully placed overhangs and blade walls, maximises winter sun exposure while mitigating summer heat. "The winter sun actually comes about seven metres into the space and almost hits the back wall," explains Tony. "So it's hitting the entire slab, heating it up through the day, and then that just radiates throughout the evening."

To amplify this design, AWS, Series 424 Double Glazed CentreGLAZE™ Fixed Highlights, were incorporated throughout. AWS's high-performance products not only help flood the interior with natural light but also play a crucial role in maintaining the home's thermal comfort.

In addition, the striking Vantage Series 618 MAGNUM™ Sliding Doors offer an uninterrupted 180-degree view from the open plan living, dining, and kitchen, providing a smooth transition between indoor and outdoor spaces. Used in place of a window, the expansive doors not only frame the awe-inspiring views but also offer the flexibility to use the concrete plinth from the fireplace as overflow seating and an extra side table in the dining space, as well as extra terrace seating when open.

Throughout the home, the flush thresholds of AWS windows and doors, combined with their innovative FlowTHRU™ draining system, ensure a seamless flow between spaces, while the consistent double glazing contributes to the overall energy efficiency of the dwelling. "It is a core part of the design and material palette," Tony explains. "Plus, we know they're Australian

designed and manufactured, and built to stand the test of time."

Tony adds that AWS's specification portal was invaluable, too. "It provides detailed drawings that allow us to refine every element," he says. "In a house like this, where the sizes and sections are so critical, consistency is key. It's reassuring to see that across AWS's different ranges." Importantly, the AWS range is designed and tested to meet stringent Australian Standards for bushfire resistance, adding the much needed layer of safety to the home's design.

The result is a dwelling that not only captivates with its striking, simple aesthetic but also delivers on its promise of sustainability and comfort. "The clients love the house," Tony enthuses. "They're amazed by how warm it is in winter without needing artificial heating - the house simply performs."

The Woodlands House stands as an embodiment of thoughtful design that respects the site and environmental impact, while meeting the needs of its occupants and yielding an authentic aesthetic that harmonises with the surrounding landscape. By embracing the existing structure, harnessing the power of passive solar design and opting for high-performing, enduring building materials and products, AO Design Studio has created a modern family home that not only respects the plot's past but is bound to enhance the lives of its occupants well into the future.

CONTACT US

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