



ARCHITECTURE

# Solar-powered center puts sustainability at heart of the community

By Adam Williams  
April 09, 2020



VIEW 7 IMAGES ↗

*The Bayswater Early Years Hub is part-built from recycled and locally-sourced materials* Peter Bennetts

VIEW GALLERY - 7 IMAGES

Australia's K20 Architecture was commissioned to design a community center in Bayswater, a suburb of Melbourne, Victoria. In response, the firm delivered an impressively sustainable building that makes use of recycled materials and features solar power and rainwater collection systems.

AD



Completed in 2019, the Bayswater Early Years Hub (aka "Sunflower") measures 1,820 sq m (roughly 19,600 sq ft) and is centrally located between a school and a bowling club. The building takes the form of two joined U-shaped structures and is mostly finished in brick that comes from a local waste collection facility. It also incorporates reclaimed timber for its ceiling finishes, natural timber logs taken from felled trees on the site, and stone excavated from the site too.



*The Bayswater Early Years Hub includes energy monitoring systems to keep track of the energy the building uses*

Peter Bennetts

Its main courtyard area contains children's play equipment and there is also adult exercise gear available, as well as shaded areas and places to sit and socialize. The interior has generous glazing to maximize natural light inside and includes early

learning spaces, maternal healthcare services, additional support services, a kitchen, bathrooms, and other rooms for the community.

The Bayswater Early Years Hub's roof is covered in solar panels, which are hooked up to a series of batteries. It's designed to run off-the-grid for most of the year but also has a grid-based connection which it's expected to make use of for about two weeks a year, depending on weather conditions.



### 3D Renders & Animations - LC:

LC3D

[Visit Site](#)

Additionally, a rainwater collection system is hooked up to water storage tanks and used for toilet flushing, laundry services, and irrigation. Monitoring systems are also installed to keep track of the energy used.



*The Bayswater Early Years Hub's exterior has some shaded areas to relax while keeping an eye on the kids at play* Peter Bennetts

"The application of passive design principles, access to natural light for internal spaces and solar control, reduces reliance on artificial lighting and cooling," says K20 Architecture. "Solar arrays, batteries, rainwater harvesting, and other sustainable initiatives form the building as a whole. The project provides Knox City Council with economic sustainability with reduced running and maintenance costs and has the ultimate goal of achieving a 100+ year building lifecycle and improved ecology for health and well-being."

Source: [K20 Architecture](#)