

City of Melbourne Council House 2: Green Revolutionary Design

Situated just east of Swanston St, opposite the Victoria Hotel on Little Collins Street, the City of Melbourne new 'environmentally friendly' building will become a lasting landmark of science. The revolutionary new building harvests sunlight, cool night air, water, wind and rain.

From the innovative air cooling in the basement to vertical gardens and wind turbines on the roof, the building will set new standards in environmentally sustainable office development. Affectionately known as Council House 2 or CH2, the building design has been awarded a six-star rating – world leader status – by the Green Building Council. While being environmentally responsible, the building will also reduce energy bills resulting in lower operational costs to ratepayers.



Elements proposed for inclusion in the design of CH2 include:

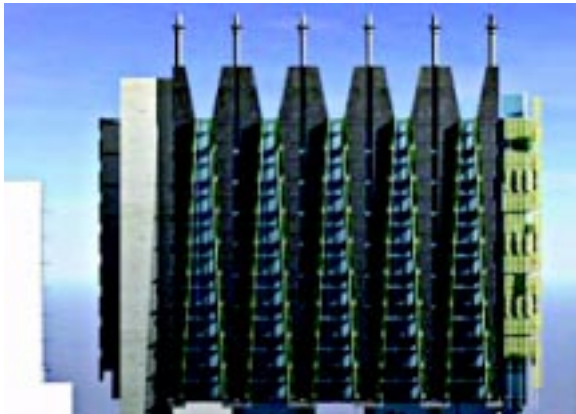
- hollow floors with individual vents that workers could open and shut to cool their area as required
- wavy ceilings fitted with radiator-like grills that channel cold water to cool the hot air created by computers, lights, human activity and other factors. Slots in the ceilings would channel stale air to the outside of the building.
- special windows on every floor that would automatically open late at night to flush the building with cool fresh air.

- solar power and rainwater collected on the roof. Water would also be collected from the underground sewer, thoroughly filtered and used to water plants and flush toilets.
- sensors constantly monitoring natural light and adjusting interior lights accordingly. The building would be dimmer than most, with individual lights at work stations that could be turned on and off as required.
- a large area would be set aside for bicycle parking, lockers and change rooms.

All these features will result in a building that is continually conserving energy and minimising greenhouse gas emissions while the constant flow of naturally cooled, fresh air will minimise costly absenteeism due to colds, flu and other easily spread diseases. The project's first stage is scheduled to be completed in 2005.

Student Activity:

- Using the 'green features' mentioned in the Council House 2 development, design your own high rise building for central Melbourne.
- Research what a six-star energy rating means.
- Add some other energy saving ideas you have thought of or researched.



The northern façade, with tapering windows and a dark colour to absorb hot, stale air from the building and allow it to rise up and out of the wind-driven turbines on the roof.



Overnight fresh air will cool the thermal mass of the unique wavy cement ceilings.



Southern facade showing three-storey-high shower towers facing Little Collins Street. The light-coloured southern façade where cool fresh air would be drawn in and down through the building.