

RainVault™ for sustainable water reuse at Pentridge Village



Principal
West Homes

Contractor
West Homes

Consultant
Mainstay

Date
April 2007

Project Summary

- Collect and reuse roof water from apartments
- Harvested water to be used for garden irrigation
- 12,000 litres capacity
- Underground system is unobtrusive and secure
- Fast and easy installation
- Capable of providing 150,000 - 200,000 litres per year
- Long term sustainable water supply

The Pentridge Village project is an exciting new concept located about 6 kilometres north of the Melbourne CBD. The site was once the home of Melbourne's infamous "Bluestone College", the former Pentridge Jail.

The land is being redeveloped into housing in a village style with narrow winding roadways, extensive street plantings and low maintenance garden beds. Other parts of the estate will be developed into shops, cafes and other commercial uses with office spaces also to be available in the near future.

To maintain the special village atmosphere created by the landscaping it was necessary to have a sustainable water supply.

Humes Water Solutions provided the development with a basic **RainVault™** system. The system was placed underground so it would not impact on the visual amenity and ensured that valuable land was not lost from public use. The system also needed to be robust, low maintenance, secure from interference, trafficable and have a long design life. **RainVault™** is a fully integrated system incorporating filtration, storage and pumping for reuse. The underground storage of water in a mildly alkaline environment (concrete tank walls), eliminates light, and temperature fluctuations, thereby limiting the growth of algae and bacteria. This provides good water quality for irrigation.

