



# hand to hand

## ASSOCIATION OF CHILDREN'S MUSEUMS

**THE SHENANDOAH VALLEY DISCOVERY MUSEUM'S (SVDM) NEW FACILITY WILL BE BUILT** on three and one half acres donated by the City of Winchester (Virginia) in Jim Barnett Park. This award-winning building (American Institute of Architects Northern Virginia Chapter's 2005 pre-built award for excellence in design) will comply with the U.S. Green Building Council's (USGBC) platinum standards. Sustainable features include site placement for passive and active solar energy collection and natural ventilation, low-emitting and no-emitting materials, wind electricity generation, geothermal heat pump HVAC systems and air-quality monitoring. Storm water management systems used will include extensive and intensive green roofs, rain barrels and cisterns for storing and recycling rain and a "parking quilt" built of permeable materials and bordered by perennial gardens that retain and cleanse runoff. Wastewater treatment will include a self-contained, membrane filtration process of reverse osmosis and ultraviolet light that will allow us to save highly purified water for irrigation on the property and to discharge clean water into the city's water system.

SVDM's mission is to ignite creativity, spark curiosity and inspire lifelong learning. The building, an exhibit itself, will feature a self-guided, interactive tour that interprets the physics of electricity production and storage, the biology and chemistry of storm and waste water treatment systems and the important balances involved in engineering systems design. SVDM will become a regional center to teach the necessity of local, regional, national and global conservation policies and practices.

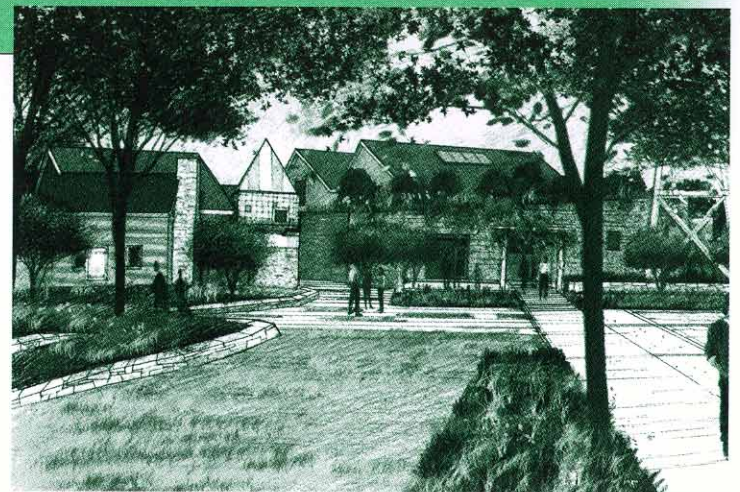
In December 2004 the Winchester city council entered into a lease with SVDM that provided the park site on which to build a new museum. Jim Barnett Park is the last remaining publicly owned land within the city limits of Winchester, comparable in scale to Central Park in New York. This decision by the city council was not without controversy. Editorials appeared in local newspaper decrying the decision, but the vast majority of comment was in favor of the move.

In the early planning stages public meetings were held to hear the ideas of local constituents. During this public comment period the notion of "green" building first surfaced. SVDM also began to interview architects, one of whom encouraged the museum to consider the USGBC guidelines for LEED certification. Several factors persuaded the board and staff to make the leap to a "green" philosophy.

1. They felt the full burden of public trust and personal responsibility.
2. They recognized the opportunity to influence public opinion in favor of our project.
3. They realized that the "green" aspects of the project appeal to many potential donors who would not otherwise be interested in a children's museum.

The most significant hurdle in the way of adopting a "green" strategy was the perceived additional cost of the technology. The U.S. Green Building Council ultimately persuaded us that while the front-end costs of building green may be higher, the long-term costs are much lower. In the end, the trust for the care of the property in Jim Barnett Park translated into a policy stating that all available knowledge and technology regarding environmentally sustainable construction will be incorporated in this new building. At the same time, museum planners realized the educational value of environmentally smart development, and decided to make the building an exhibition itself. Therefore, all the "green" technology incorporated in the building will be interpreted for visitors via interactive displays.

Today, the museum is on track for achieving a platinum certification from the USGBC making SVDM one of only four platinum buildings in the east, and one of only eleven in the country.



### SHENANDOAH VALLEY DISCOVERY MUSEUM

Winchester, Virginia

[www.discoverymuseum.net](http://www.discoverymuseum.net)

<b>Architect:</b>	<b>Reader/Swartz Architects</b>
<b>Building Size:</b>	<b>29,000 square feet</b>
<b>Project budget:</b>	<b>\$9 million</b>
<b>Opening date:</b>	<b>2007</b>
<b>LEED certification:</b>	<b>Platinum (pending)</b>

#### SUSTAINABLE FEATURES

- Sustainable site planning, including restoration of native habitat through installation of native trees and herbaceous plants; garden composting.
- Water efficiency, including use of water-efficient landscaping, no irrigation; installation of green roof, cistern and infiltration/bioretenion cells.
- Energy and atmosphere, including purchase of renewable energy and production of 75% of needed energy with photovoltaic cells and wind turbine.
- Materials and resources, including floor coverings of cork, linoleum, corn-based carpet and bamboo.
- Indoor environmental quality/control, including geothermal heating and cooling, operable windows, day-lighting and view preservation.