

# The 2005 Excellence in Design Award Winner

MULTI-USE RESIDENTIAL (APARTMENT, CONDOMINIUM)

## EASTERN VILLAGE COHOUSING CONDOMINIUM

- SILVER SPRING, MD.
- SUBMITTED BY: THE ECO HOUSING CORP., BETHESDA, MD.  
WWW.ECOHOUSING.NET
- SIZE: 92,582 SQUARE FEET
- COMPLETED NOVEMBER 2004
- UNIT318 PHOTO BY PETER KOCHER

residential lighting are specified throughout, which, combined with ultra-water-saving plumbing fixtures, will save significant energy and water use over time.

The construction of EVC reduced the site imperviousness from 95 to 65 percent while increasing the number of site amenities for the building's residents. The original office building featured a parking lot in the center of the site. During construction of EVC, the parking lot was removed and replaced with a grid of forty 600-foot deep geothermal wells covered by a landscaped entrance to the building. On the roof, asphalt has been transformed into an extensive green roof system, which provides additional outdoor space for the community as well as reduces stormwater runoff.

EVC has proven that the cost of high-quality, green, sustainable construction does not have to exceed the cost of conventional construction. The first 40 households purchased their units below market rate for comparable housing, and over half of EVC households constitute first-time homebuyers. Further, while incorporating state-of-the-art green technology, more than 50 percent of units were affordable to tenants whose income is below 80 percent of the area median income.

EVC constitutes the first LEED-registered cohousing project. Individual units in EVC might appear small but are complemented by the extensive common indoor and outdoor spaces, including a common house with a kitchen and dining room, children's playroom, workshop, living room, library, game room, and rooms dedicated to yoga and meditation. EVC attracted most of its members with the prospect of urban living with friendly neighbors.

### Notable sustainable materials, products and systems include:

- All appliances throughout the building were ENERGY STAR qualified including clothes washers and dishwashers
- All exterior wood is treated with non-CCA preservatives
- All native and/or adaptive plants
- American Hydrotech Extensive Garden

### Roof

- Cardinal Low-E coated glass provides added insulation and reduces solar heat gain, and energy-efficient interior fluorescent lighting with electronic ballasts
- Cyclone XHE Water Heaters (98 percent thermal efficiency) manufactured by A.O. Smith Water Products Co. Each unit has its own FHP Manufacturing Simple Comfort Model #3801 programmable thermostat
- Duron Genesis Oder-free latex paints (local source and zero-VOC paint used on all interiors)
- Existing concrete ceiling was painted
- Flooring includes Hawa bamboo flooring, Patcraft Net Lingo carpet, Mohawk Alladin Westin Hill carpet, Forbo Linoleum, Armstrong linoleum
- Geothermal Heat Pumps from Florida Heat Pumps that utilize a ground source heat exchanger to reject the heat from the heat pumps ion cooling mode
- Green Lee Lighting VBS Bollard exterior lighting
- Homecrest cabinets and all interior doors were from local sources
- Niagara Earth Massage Shower Head (1.75 GPM), bathroom lavatory features 1.5 GPM aerators
- U.S. Gypsum drywall contains 5 percent post-consumer recycled content and 14 percent post-industrial recycled content, Dietrich metal studs contain 64 percent post-industrial recycled content
- Walls feature Fiberglass R11 5-inch batt insulation manufactured by Knauf and the roof has 3-inch thick extruded polystyrene manufactured by Dow

*Congratulations to the following parties involved in this project: developer Eco Housing Corp., architect EDG Architects; structural engineer Cates Engineering; HVAC engineer RK Consulting; civil engineer Charles P. Johnson & Associates; landscape architect Lila Fendrick; contractor Meridian Construction Co.; commissioning agent Architectural Support Group, Inc.; LEED consultant Sustainable Design Consulting; and energy analysis Thermal Energy System Specialists.*



The Eastern Village Cohousing (EVC) Condominium project team believes three salient features—green construction, affordability, and cohousing—make EVC worthy of this award. The project has won NAHB Green Project of the Year in the Luxury/Condo category, and a Smart Growth Alliance Award.

The design of EVC followed green building principles, including local, recycled-content, rapidly renewable, certified wood and low-emission materials, construction and demolition waste recycling and indoor air quality management. This adaptive reuse of a 1950s office building maintains approximately 75 percent of the building's structure and shell, replacing windows with more energy-efficient ones and adding insulation to the interior of the building's envelope. EVC residents enjoy inexpensive, energy-efficient ground-source heating and cooling. Overall energy savings are 45 percent greater than the ASHRAE 90.1-1999 baseline. ENERGY STAR appliances and