

ORR COTTAGE

Poetic, Practical, and Gold-Standard Green

The Orr Cottage, named for Doug Orr, President Emeritus of Warren Wilson College, and his wife, Darcy Orr, is one of the first buildings on a college or university campus to achieve LEED Gold Certification for new construction. Over 15 student crews did the work, making this the first completely “in house” building project at the College. The Orr Cottage, which uses 50% less energy than a conventional building of the same size, is a blend of the practical with the poetic. Constructed with stone from nearby mountains and wood siding and trim from the College forests, it exemplifies the natural-materials philosophy of the Arts and Crafts movement.



Large windows and antique, glass-paned doors allow natural light and views for 90% of occupied space.



Light shelves reflect sunlight onto interior ceilings to illuminate the offices without glare.



Facilities Management Crews at work include Building Services, Purchasing, Forestry, Campus Support, Carpentry, Plumbing, Electric, HVAC, Paint, Autoshop, Locksmith, and Housekeeping—the ultimate in hands-on learning.



All of the wood siding comes from Warren Wilson forests, sustainably harvested and milled by the Forestry Crew.



The boulder wall, steps, and terrace are built of native stone.

Green Features

Outside

- Site is reused, with nothing built on adjacent green space equal to building's footprint
- Bioretention trench collects and filters stormwater
- Native and drought-resistant plants compose the landscaping
- Building envelope includes Icynene spray-foam insulation
- Larger windows are low-e, argon-filled for low air-infiltration
- Exterior light shelves reflect sunlight to interior walls
- Wood siding and timber columns are from the College forest; native stone is from regional sources
- About 90% of all construction waste (25+ tons) was diverted from the landfill

Inside

- Antique, recycled doors with glass panes bring daylight to interior spaces
- Lighting is energy-efficient compact fluorescent, with motion detectors in common-use areas
- Interior paints, clear-coats, glues, and carpeting are low-VOC
- Water use reduction exceeds the 1992 Energy Policy Act by 30%
- Geothermal closed-loop system heats/cool and is 70-80% more efficient than minimum code
- Wind power renewable energy credits offset 100% of energy usage
- Monitoring equipment controls are fully digital
- Recycled materials include 80 doors, desks, and other furniture
- Formaldehyde-free and rapidly renewable wheatboard make up cabinets, desks, and shelving
- Wainscoting and trim are from the College forest; carpet tiles and hardwood floor are from local sources
- Green Seal-approved cleaning supplies are used for housekeeping