

Upstate Forever

Promoting Sensible Growth and
Protecting Special Places in the Upstate



The Green Renovation Project is an initiative by *Upstate Forever* to restore and remodel its main office in Greenville, South Carolina in a way that protects health, conserves energy and reduces environmental impacts. Our goal is for the project to serve as a model and inspiration for other residential, commercial or industrial renovation activities in the Upstate and elsewhere. Our new office will be certified under both the EarthCraft and Leadership in Energy and Environmental Design (LEED) programs. We anticipate receiving LEED certification at the highest level (platinum).

Originally constructed as a single family residence in 1916, our project site had been vacant for over twenty years and had deteriorated badly. The house contained asbestos, termite damage, rotted woodwork, and fire damage, all of which had to be addressed before we could begin the actual renovation work.

By renovating an existing building instead of constructing a new one, we adhered to the basic principle of sustainability, that “the greenest building is the one already built.” Another important principle that we followed was to reuse existing materials wherever possible. Where it was not possible to reuse the materials, most of them were recycled. Finally, where new materials had to be used, we made sure they were highly sustainable.

This project addresses a big missing piece in the green movement – how to improve the performance of existing buildings, which outnumber new buildings by 100 to 1. We will not be able to reduce the health, energy, and environmental impacts of the built environment unless existing structures are addressed. At our office building, people can see, touch, feel, and learn about a wide range of green options as they consider their own renovation plans.

Self-Guided Tour

Entry & Reception

- **Floors** – reclaimed heart pine from three closed Upstate textile mills
- **Original Doors and Trim** – removed, restored and reinstalled
- **Paint** – non-toxic low-VOC (volatile organic compounds) finish
- **Solar Meter** – Digital display tracks power generation by rooftop solar panels

Conference Room

- **Table and chairs** – Green Guard indoor air quality certified; built using low chemical and particle emitting building materials
- **Cabinetry and shelves** – bio-based composite made from sunflower seed husks and wheat
- **Skylight** – Velux sun tunnel
- **Light fixtures** – Hubbell Lighting
- **Windows** – Energy efficient by Marvin Windows

Hallway & Staircase

- **Floor** – Yellow pine original to building
- **Stair Case** – Original to building

Upstairs Office

- **Roof** – Life Pine Shake and Shingles made of sustainably-harvested wood and treated with a non-toxic preservative that prevents mildew, insect damage and general decay
- **Velux Skylights**
- **Original Beams**

Green Roof (view from Land Trust Office)

- Extensive modular grid system with iris, green and gold, and spiderwort plants
- Provides temperature reduction, reduced water runoff, sound insulation, improved air quality, extended roof life, energy cost savings and is aesthetically pleasing

Storage Closet

- **Insulation** – Icynene spray foam which provides a continuous air barrier, never shrinks, contains no ozone-depleting substances and reduces energy bills by 30 to 50%
- **Sun tunnel** also can be seen

Clean Air and Water Office (Downstairs Middle Office)

- **Carpets** – Recycled Bioscapes Relax by Interface
- **Windows** – Divider reclaimed from building's upstairs
- **Desks** – Pre-owned from Champion & Bowater

Brad's Office

- **Floor** – Reclaimed shipping pallets
- **Furniture** – Made from recycled wheat and sunflower seeds
- **Flat Ceiling** – Supports green roof

Bathroom

- **Floor** – 100% recycled glass terrazzo tile by Wausau
- **Toilet** – Dual flush water saving toilet

Kitchen

- **Refrigerator** – Energy Star
- **Countertop** – Antimicrobial Silestone

Accounting Office (Back Office)

- **Floor** – Forbo Marmoleum made from hemp, linseed, and other sustainable materials

Backyard

- **Walkway** – Reused bricks from chimney and porous concrete
- **Landscaping** – Low maintenance native plants, no grass
- **Rain Barrels** – Collect rainfall from roof and uses it to irrigate native plants
- **Bike Shelter** – Coming soon...

Front Yard

- **Rain Gardens** – Designed to collect and keep excess runoff water for water intensive plants
- **Solar Panels** (On the roof) – Provide all of our hot water and over a fourth of electrical power
- **HVAC** – An innovative split-system allowing individualized climate control of 9 zones throughout the house, conserving energy by not overheating or overcooling unoccupied rooms

The Green Team

AbitibiBowater – furniture donation

33 E. Camperdown Way, Greenville, SC 29601; www.abitibibowater.com

Abtec of South Carolina – asbestos removal

202 McNeely Road, Piedmont, SC 29673; 864-295-6400

Ascot Earth Systems – rain barrels

1361-F W. Wade Hampton Boulevard, Suite 152, Greer, SC 29650; 864-895-9745

Blinds by Design – window treatments

314 Pimlico Road, Greenville, SC 29607; 864-905-9977; www.blindsbydesign.biz

Blue Ridge Cabinetworks – book shelves

208 Oak Forest Road, Spartanburg, SC 29301; 864-595-0398; www.blueridgecabs.com

Builders FirstSource – lumber

801 S. Washington Avenue, Greenville, SC 29611; 864-269-8110;

www.buildersfirstsource.com

Bonitz – carpet

1200 Woodruff Road, Merovan Center, Building D-1, Greenville, SC 29606; 864-288-3771; www.bonitz.us

Brown Arrow Technologies – information technology services

200 Rae's Creek Drive, Greenville, SC 29609; 864-335-9296

Bushman USA – rain barrels

www.bushmanusa.com

Carolina Virgin HeartPine – flooring

112 Ram Cat Alley, Seneca, SC 29678; 864-985-2197; carolinavirginheartpine.com

Cemex – porous concrete

840 Gessner Suite 1400, Houston, TX 77024; 713-650-6200; www.cemex.com

Cox Industries, Inc. – roof

860 Cannon Bridge Road, P.O. Box 1124, Orangeburg, SC 29116; 803-534-7467;

www.coxwood.com

Earth Artist Mountain Studio Campus – flooring

1300 E. South 6th Street, Seneca, SC 29678; 864-886-8800

Earth Design – landscape design

405 Johnson Street, Pickens, SC 29671; 864-898-1221; www.earthdesignsc.com

Forbo – Marmoleum flooring

Contact Pat Blide at pat.blide@forbo.com

Fuller Consulting Engineers, Inc. – structural engineering
1350C Cleveland Street, Greenville, SC 29607; 864-235-3580; www.fullerce.com

Glenco Insulation – insulation
12 Gordon Street, Greenville, SC 29611; 864-269-7886; www.glencoinsulation.com

GreenGrid – green roof modules
Contact Greg Harper at greg.harper@westonsolutions.com

Greenville County Recreation District – picnic table
4806 Old Spartanburg Road, Taylors, SC 29687; 864-288-6470; www.gcrd.org

Hawkins Pest Control – termite treatment
304 Ledbetter Road, Travelers Rest, SC 29690; 864-834-3875

Hubbell Lighting, Inc. – lighting
701 Millennium Boulevard, Greenville, SC 29607; 864-678-1000; www.hubbell-ltg.com

Interface, Inc. – carpet
2859 Paces Ferry Road, Suite 2000, Atlanta, GA 30389; 770-437-6800;
www.interfaceinc.com

Johnston Design Group – architects
314 Lloyd Street, Greenville, SC 29601; 864-250-0701; www.johnstondesigngroup.com

KLG Jones, LLC – building commissioning
218 Trade Street, Suite E, Greer, SC 29651; 864-848-6116; www.klgjones.com

Ellen Kochansky – art and interior design
ekochansky@gmail.com

Marvin Windows and Doors – windows
P.O. Box 100, Warroad, MN 56763; 888-537-7828; www.marvin.com

McBride's – office furniture
832 Wade Hampton Boulevard, Greenville, SC 29609; 864-271-1720

Oaks Unlimited – flooring
3530 Jonathan Creek Road, Waynesville, NC 28785; 828-926-1621;
www.oaksunlimited.com

S&B Woodworks, Inc.
Contact Bob Ripley, 654 S. Main Street, Greenville, SC 29601; 864-271-6871

Schneider Tree Care – tree pruning
231 Tanner Drive, Taylors, SC 29687; 864-244-3088; www.schneidertreecare.com

Sims Group – mechanical, electrical, plumbing
223 W. Stone Lake Avenue, Greenville, SC 29609; 864-232-5980;
www.simgroupusa.com

SKY Energy – renewable wind energy
2131 Woodruff Road, Suite 2100, #203, Greenville, SC 29607; 1-866-759-3637;
www.sky-energy.com

Smith Dray Line – moving
P.O. Box 2226, Greenville, SC 29602; 864-269-3696; www.smithdray.com

Southerland Construction – builders
135 S. Main Street, Greenville, SC 29601; 864-271-2224;
www.southerlandconstruction.com

Southern Mulch – mulch
427 Independence Boulevard, Greenville, SC 29615; 864-297-8884;
www.southernmulch.com

Sterling Video – video and documentation
734 Melvin Hill Road, Columbus, NC 28722; 828-868-2181

Sunstore Solar – solar panels
3090 S. Hwy 14, Greer, SC 29650; 864-297-6776; www.sunstoresolar.com

Tuck & Howell, Inc. – HVAC
P.O. Box 970, Greer, SC 29652; 864-879-7277; www.tuckandhowell.com

Tucker Materials, Inc. – drywall
101 Bi-Lo Boulevard, Greenville, SC 29607; 864-297-9181

Velux – skylights/sun tunnels
Contact John Pillman at john.pillman@velux.com

Upstate Computers – telephone system
1097 Hwy 101, Suite D-14, Greer, SC 29651; 864-334-1961; www.upstatecomputers.biz

Upstate Custom Metal – metals
Contact Greg Hayes at mmhayes098@hotmail.com

Tommy Wyche – photography
44 E. Camperdown Way, Greenville, SC 29601

Workspaces, Inc. – office furniture
307-A River Street, Greenville, SC 29601; 864-233-7050;
www.workspacesgreenville.com

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