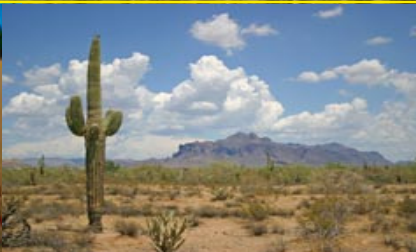




eureka green



Your source for current news, trends, and events in sustainability and green design.



letter from the editors

welcome to *eureka green*!

This year, we are going to try to pump out quarterly newsletters to keep you up to date with what's new, what's green, and what you can expect from the USGBC in Arizona. In order to meet these deadlines 3 of us have teamed up to bring you green news from around Arizona, and thus *eureka green* has been born.

A little about your *eureka green* Newsletter Team:

Kirti Dwivedi

Growing up on the East Coast and the Midwest, I always read articles about saving the environment and global warming, but never felt there was a way to address these concerns in those areas... other than being stringent on using the ever-present blue recycling bin in the garage. Upon my move to the Valley, I found that there are more outlets for making a difference. When I started with Wright Phoenix, I found that our company has a strong dedication to sustainability and 'being green', and was strongly encouraged to pursue my interests. I feel lucky that I have been given the opportunity to learn and implement my knowledge during my time here. Then, last month, I was asked if I would be interested in working on the Arizona chapter's newsletter, and was introduced to Beth and Melissa Reitz, two inspired individuals with whom I am thrilled to share this experience! I look forward to being a part of this fabulous group and working to educate Arizona with this and upcoming issues of *eureka green*!

Melissa and Elizabeth (Beth) Reitz

Growing up in Southern California in the 80's and 90's we were always pounded with thoughts of being green and what we could do, even as little rug rats, to help Mother Earth heal her wounds, and become whole again. As adults, we have come to realize that while we cannot make Mother Earth completely whole again, we can most certainly take baby steps to help slow the process of her destruction. We knew we wanted to find careers that would allow us to help the world 'go green'. It is because of this desire that I, Melissa, found myself in the field of energy efficient lighting solutions for commercial facilities. While I also help companies with their day to day lighting needs, it is the sustainable practices, suggestions, and education that really excite me. I feel blessed that my career allows me to find ways for corporations to become more energy efficient in regards to lighting technologies. Beth also found herself in an incredibly rewarding job at Coca-Cola Enterprises, but was disappointed to find that they were not as advanced with sustainable practices as she had hoped. However, through investigation, she found that Coca-Cola did have a sustainability program, and hopes, in the near future, that she will be on the team that helps their Tempe, Arizona, location become more environmentally friendly. While our careers are extremely fulfilling, we both had that nagging feeling that we wanted to be of service to our community, and found ourselves, like so many others, at an USGBC meeting at the beginning of this year. Since Beth's college degree is in communications, we stumbled across the communications table during the breakout portion of the meeting. Further, it was because of my pipsqueak of a sister that we found the confidence to take on the task of being on the newsletter team that has now become me, my sister, and another fabulous individual that shares the passion to help educate our state about green practices. Hopefully, during this upcoming year, we will be able to educate you all on what is going on around Arizona in regards to sustainable practices, and help keep you updated on what is going on around the USGBC.

nfl & community partners plant thousands of trees to make superbowl xlii green

January 22, 2008 (PHOENIX) – The National Football League and the Arizona Super Bowl XLII Host Committee are working with local, state and national partners to plant thousands of trees in Arizona as part of the NFL Environmental Program at Super Bowl XLII.

More than nine thousand trees are being planted to restore native habitat in an area devastated by wild fires five years ago. In addition, a series of urban forestry projects will plant larger trees on school campuses throughout the Phoenix area.

Three large reforestation projects have been developed in the Rodeo-Chediski Fire burn area, the site of one of the worst fires in the state's history, destroying nearly half a million acres of forest. Forty-two acres of Ponderosa Pine are being planted on the White Mountain Apache Reservation and an additional forty-two acres are being planted at the nearby Apache-Sitgreaves National Forest. Another twelve-acre site has been added to the original planting area because of interest from Super Bowl sponsors in joining the project.

Seven local schools were selected as urban forestry sites and each campus will receive six large trees to be planted before Super Bowl XLII. Unlike higher mountain areas where seedlings can be planted, the drier, hotter climate in the Phoenix area requires that larger trees be planted in order to survive the heat.

Support for these tree-planting projects has come from the Arizona Department of Environmental Quality, Salt River Project, The Home Depot Foundation, Arizona Community Tree Council, US Forest Service, the Arizona Office of the State Forester, RBF Consulting, White Mountain Apache Tribe, and Sprint.

This is the fourth year that the NFL has developed tree-planting projects as part of the overall "greening" of Super Bowl. Previous projects have taken place in Jacksonville, Detroit, and South Florida. In each case, the NFL has worked with a coalition of public and private organizations who share an interest tree planting.

Other environmental projects at Super Bowl XLII address solid waste, material reuse, and prepared food recovery. This year's Super Bowl will be powered by energy from renewable sources including wind, solar, landfill gas and geothermal.

The NFL Environmental Program is just one of a large number of community events and initiatives developed each year by the NFL to leave a positive legacy in each Super Bowl host community.

Update: At press time, 4,000 (42 acres) had already been planted. The final 6,000 trees (58 acres) will be planted in the spring once the snow in those areas has melted.



nash to play in trash shoes



The headline does not lie folks. Steve Nash will play in trash shoes tonight. Well...not garbage per say, but pretty close. He is debuting the **Nike Trash Talk**, the first performance basketball shoe made from manufacturing waste. Gotta love this. Yes Nike, you are socially responsible. You get brownie points from us:

"Any opportunity to promote the environment and preserve our planet is a step in the right direction," Nash said. "I'm very excited to be one of the first athletes to wear the Nike Trash Talk. I think people will love the shoe, and hopefully by wearing it I can inspire others to try it out as well."

Nike and Nash have done it again. We thought that Steve Nash couldn't get any more marketable and now he is playing in eco-friendly trash shoes.

Our only question is...How many recycled shoes would it take for Shaq to dawn these puppies? 100? 1,000? 10,000?

for more information, visit www.AZSportsHub.com for more Arizona Sports Takes.

green feature

Under-Floor Air Distribution: The way of the future

Under-Floor Air Distribution (UFAD) is a green technology that will be the way of the future. It is a great way for companies to obtain LEED points while simultaneously creating a healthier and more comfortable work environment, and increasing the bottom line. When used, it can provide up to seven (7) LEED points under the USGBC LEED rating system. Thanks to the forward thinking engineers, developers and employees of Momentum Technology Centers, the USGBC has had the opportunity to learn more about this incredible technology. There are many benefits of utilizing an UFAD:

Optimized Energy Performance under the Energy and Atmosphere Category

Delivering supply air via a plenum under the raised access floor permits delivery of supply air at a temperature of 65° instead of 55° as in traditional HVAC systems. This allows companies to down-size HVAC equipment tonnage, and to reduce the size of fan motors due to the fact that the UFAD requires only low pressure to distribute the air. Traditional HVAC systems use larger fans to force the cold air down through the hot air that is rising in order to cool the occupants in the workspace.

Thermal Comfort under the Indoor Environmental Quality Category

The UFAD provides better thermal comfort for the occupants by allowing them to individually control their comfort via floor registers by the amount of and direction of the air flow. Since the supply air is allowed to rise from the floor it registers to the returns in the ceiling, thus pollutants are lifted out of the occupied space instead of being mixed with stale air as is the case in a traditional system.

Innovations in Design Points

The raised access floor also provides an easily accessible area through which to deliver modular electric, voice and data distribution. It reduces the demand for virgin materials and reduces waste of move-in and reconfigurations. The modular system allows for quick connections to floor boxes with electrical, voice and data connections for each occupant. Also, it allows for a reduction in the time required for initial tenant improvement build-out and makes reconfiguration of workspaces very easy.

Increase in Bottom Line

Further, The UFAD will increase the bottom line to the tenant/business owners by helping increase employee productivity, and lowering recruitment costs with better retention of employees. In addition reduced time and expense for reconfiguration of space will also increase the bottom line.

Due to the fact that the UFAD has less greenhouse emissions, a smaller carbon footprint, fewer raw materials used and less waste going to the landfills it becomes the most logical air distribution system to use in commercial facilities. As long as businesses continue to be educated on the benefits of using an UFAD system, this green technology will no doubt become the way of the future.



project profile

first LEED Platinum pilot home



USGBC has announced the first LEED for Homes Platinum building in Arizona. The residence was designed and constructed by one of our members, Architectural & Environmental Associates, Inc. (AEA), with offices in Flagstaff and Phoenix. Some of the features of this residence are:

1. The house is oriented on the site so that the long sides face south and north to improve “daylighting”, maximize passive solar heat gain, facilitate thermal as well as photovoltaic solar systems, and minimize western exposure.
2. Electricity is provided by a 7.2 kW grid tied solar photovoltaic (PV) system with 24 six volt batteries for backup power. The backup system provides emergency power for critical loads like the refrigerator, house water system, recirculation pump for the radiant floor heating system, and the smart house computer system.
3. Solar modules at the carport act as a roof that shades the hard paving reducing heat gain. The solar and wind tax credits, combined with the utility company rebates, total \$24,600.00*.
4. Additional electricity is provided by a 1.8 kWh Southwest Wind Skystream 3.7 wind turbine. The PV and wind systems combine to make the house carbon neutral, a “zero carbon house” and “a zero energy” house. The house produces more energy that it uses.
5. Waste products are processed by a “Noweco Singulair” system with UV light treatment. The system is less expensive and more attractive than a “Wisconsin Mount System”.
6. A rainwater harvesting system collects 37,500 gallons from the existing and new building roofs. 11,000 gallons are allocated to potable water for the house and the remaining 26,500 gallons are used for irrigating landscape plant material on site. The tanks are full with a less than average rainfall for Flagstaff.
7. Grey water (waste water from showers, bathtub, clothes washer, and bathroom sinks) is also recycled for addition onsite irrigation.
8. The design features significant outdoor living space (decking & patios) which provides additional usable area without expensive utility infrastructure and other building improvement costs.
9. Radiant floor heating and domestic hot water are supplied by a solar thermal system.
10. The house features “cooling tower” strategies where automated windows allow hot air to escape and cool air to enter (based on the concept of air stratification by which heated air rises).
11. The house has no fireplaces, gas stoves, or other combustion appliances so no fossil fuels are burned, no pollution is created and global warming is reduced.
12. The walls, floor and roof employ advanced framing concepts that can reduce labor and material costs (for framing) by up to 15%.
13. Windows and exterior doors feature a high “R-value” (insulation) rating for increased energy savings.
14. Structural Insulated Panels (SIP’s) are used on the exterior walls yielding a tight wall system (minimal air infiltration) and superior insulation (R-36).
15. Indoor air quality is further improved by using all “non-fiber” surfaces for flooring (no carpeting which collects particulates, dirt, mold, bacteria and other pollutants).
16. All appliances and interior lighting fixtures are EnergyStar rated and all exterior lighting features “dark sky” fixtures.
17. Interior finishes feature eco-friendly sustainable products like clay paint, American Clay wall finishes, recycled ceramic floor and shower tiles, cork flooring, recycled rubber and cork sheet flooring, concrete countertops with fly ash, agri-board and “Kirei” board shelving (made of waste straw), as well as use of low or no VOC caulking and adhesives. These products improve indoor air quality, reduce chemical exposures, and encourage recycling.
18. The use of low-flow toilets, shower heads, and water faucets increases water conservation.
19. Automated controls (Smart Home System) are used for heating and cooling, and for monitoring technical as well as environmental data for the home. This includes the amount of rainwater collected, amount of water consumed, amount of electricity generated, temperature inside and outside of the building envelope, indoor humidity levels, a rain sensor to shut down the drip irrigation system, wind speed and direction, wind chill, window and door status (open/closed), lighting use, heat or smoke detection, entry alarm system, and other critical data.

usgbc across arizona

northern arizona

The Northern Arizona Governing Council hold their Governing Council (3:30 pm) and membership meetings (5:30 pm) every second Thursday of each month. In March, the Council and membership meeting will be at the Coconino County Supervisor's Chambers and covers 'High Energy Saving Windows, What to Look For', put on by Marvin Windows - the fee to attend is \$15.00 for members or the public and \$5.00 for students. Food and soft drinks will be available as part of the charge.

Meeting locations for the Northern Arizona Governing Council are changed from time to time to one of the member cities; February's meeting was held in Prescott.

The topics for the upcoming meetings are:

April - "Photovoltaic Solar System, Installation, Rebates and Tax Credits"

May - "Permaculture"

June - "Recycling"

July - "Rainwater Harvesting"

August - "What is LEED all about & how do I get training or become AP"

September - "Wind Power"

In addition, a "Green Drinks" function is held the first Friday of every month.

USGBC representatives announced another LEED Platinum building for the Northern Branch area, which is the first LEED for Homes Platinum residence in Arizona (Bellemont, Arizona, just west of Flagstaff). The residence was designed and constructed by one of our members, Architectural & Environmental Associates, Inc. (AEA), with offices in Flagstaff and Phoenix.



Northern Arizona Board Members (l-r): Richard Bowen, Rob Bruner, Thad Johnson, Patrick Hurley, Carl Ramsey - Chair, Norman Lowe - Treasurer, Amanda Acheson (Guest, Sustainability Manager for Coconino County), Joe Costion, Erika Maza (Guest, City of Flagstaff) Justin Erickson - Vice Chair, Tim Kinney
Absent: Steve Andros, Robert Breunig, Carl Taylor and Nicole Woodman.

Proposed schedule of Southern Arizona meetings for 2008:
April 9 at noon at the "Reid Park Zoo School" - Field trip to recently opened LEED Platinum certified Zoo School project by Swaim Associates, Architect, Adolfsen & Peterson, General Contractor, and Green Ideas, LEED consultants.

May 14 at 5:30 pm (downtown location still pending depending upon RSVPs) 'LEED Platinum NAU Applied Research and Development Building at NAU' - Invited guest speakers will include Burns Wald-Hopkins Architects, Kitchell Construction, & Green Ideas.

May 27, 12pm - 5:00 pm at Pima Community College (Stone & Speedway Campus) 'National LEED Charrette Facilitation Workshop' - a national training workshop designed to train design professionals on how to conduct a LEED Charrette.

June 11 at 5:30 pm at Pennington Street Garage 'Party on the Roof of

southern arizona

Pennington' - Networking event to celebrate the summer solstice and showcase the locally

recognized mixed-use urban-infill facility with 60 KW of PV panels.

July 9 (time & location TBD) "Reaching out to the Unchurched" - Outreach event intended to provide exposure and training to owners, contractors, vendors and design professionals about LEED programs and green building.



Southern Arizona Board Members (l-r): Front - Adrienne Gamba (Vice Chair), Rich Michal (Chair), Dave Shambach (Treasurer), Stefanie Gerstle (Secretary); Back - David Plotkin, Rodney Mackey, Francis Maasland, Juliann Berens, Bruce Woodruff, Nate Riggie, Arthur Stables
Absent: Ralph Banks

central arizona



Central Arizona Board Members (l-r): Athavan Rajasundaram*, Denise VandenBossche, Jalal Avades, Bonnie Richardson*, Ruth Darby, Caroline Lobo, Charlie Popeck, Michael Quinn**, Dimitrios Laloudakis, Jim Westberg, Sue Sylvester, Rick Carr, Ian McDowell

Missing from photo: Premnath Sundharam, Mark Wilhelm, & John Bellian

** Denotes these members on the Chapter Governing Board of Directors, other directors not pictured are: Nora Calato and Dave Burns*

*** Mike Quinn was an ex-officio of the Arizona Chapter; he served us well in 2007*

The Arizona Chapter of the United States Green Building Council (USGBC-AZ) has published a special insert section in the Southwest Contractor magazine for the past several years that highlights their efforts and issues of concern to the green building community. This insert has a subscribed distribution of about 18,000 in Arizona, New Mexico, and Nevada, with an additional 2,000 copies reprinted by the USGBC-AZ for distribution at local and national Chapter Meetings, Expos, or Green Building Conferences. The Arizona Chapter deadline to submit Articles is April 1, 2008. Please see <http://chapters.usgbc.org/arizona/documents/CallForArticlesv1.pdf> for more information.

There are a number of exciting upcoming events for the Central Arizona Governing Council:

A 'Green Lunch' series in May of this year, in order to reach the market that cannot make the evening event. Sponsors for venues and catering for lunchtime USGBC

Seminar Series are being sought. Also, the Central Branch is looking for speakers to present on a variety of topics to the industry at the Green Lunch events.

On April 8, 2008 at 4 p.m., please join Emerging Green Builders of Central Arizona as they provide an exclusive opportunity to get a first hand tour of 347,000 square foot Biodesign Institute, which achieved LEED certification on the Platinum level. For more information please check out <http://chapters.usgbc.org/arizona/documents/AprilBiodesignTour.pdf>.

Some of the upcoming events on the Branch Calendar are (please see the website for full details):

§ Mesa Community College Environmental Awareness Expo - March 27th

§ Southwest Facilities Expo - April 9th-10th

§ Phoenix Construction Expo - April 15th-16th

§ Valley Forward Livability Summit - April 22nd

§ Monthly Branch Event 'Hospitality Table'

For more information on upcoming events and meetings visit the Arizona USGBC webpage at

<http://chapters.usgbc.org/arizona/events.html>.

open market

classifieds

Central Arizona Governing Council

The Education Committee is currently seeking:

- Volunteers for many exciting upcoming events – please see the website for the Branch Calendar for full details:
<http://chapters.usgbc.org/arizona/events.html>.
- Mark your calendars for the Glendale Family Bike Ride on April 13th.

Contact Marcelo Reyna (Chair) or Juan Lozoya (Secretary) for more information.

valley forward's livability summit

Valley Forward's Livability Summit will facilitate education and outreach on Healthy Living in the Desert. The Association's ultimate goal is to help to improve the environment and sustainability of Valley communities and positively impact the health and well being of residents.

A Green Scene Bus Tour has been added to this year's program. Attendees will visit Environmental Excellence Award winning sites and other exemplary green building projects and learn how these facilities were built in harmony with our unique desert environment.

Please join Valley Forward and other Valley professionals on April 22, 2008, at the Phoenix Convention Center.

See www.valleyforward.org for more details.

Northern Arizona Governing Council

We hold Green Drinks on the first Thursday of every month. Our last Green Drinks took place on December 6th, 2007. Stay tuned for information on our next event! For more information, please visit:

www.greendrinks.org.

Contact Information
Carl Ramsey
(928) 214-0005
carl@aeapower.com

careers

No listings this month. Please check back next time!

*If you have a job opening you would like to advertise within **eureka green**, please contact Melissa Reitz at 602.931.3792 and we will list in it our next issue.*

advertising opportunities

In our next issue,

Interested in gaining some additional exposure for your firm?

Starting with our next issue, we will be offering a standard advertising package for \$75 per issue. This includes the following:

- **Your logo featured on the front page of the newsletter**
- **A 100 word company profile on the last page of the newsletter**

Opportunities are limited! Please contact Melissa Reitz at 602.931.3792 for additional information.

seeking contributors

Have a cutting edge sustainable project coming up? A 'green' product coming to market that can help the environment? We appreciate any and all articles relating to sustainability