SIERRA CLUB

Alamo Group of the Sierra Club Newsletter The Alamo Sierran May 2014, Vol 48 #2

Word from the Group Chair San Antonio Deconstruction Policy Needed

Deconstruction is the environmentally sound side of building demolition. It is a process by which a building is taken apart in order to salvage all or part

of the building materials. Deconstruction is the reality is some parts of the world—the most impoverished and the most progressive. Currently San Antonio's Pathway to Zero Waste Plan does not include commercial recycling or deconstruction recycling. In 2013, city funding was allocated for a commercial recycling program manager and for comparative city research. What plans and policy evolve here will depend upon guidance from City Council and stakeholders, so it is important that Sierrans contribute to these issues now.

It is a long human tradition to use and reuse building materials in their primary state: bricks, cut stone, beams, trims and moldings, and wood and lumber. There is also a long tradition of salvaging fine and vintage architectural object such as windows, doors, columns, lighting, mantles, hardware, fixtures and garden objects. It is only in recent decades that Americans have taken to commonly disposing of building stock that is no longer wanted or serviceable by demolition and landfilling. This is a great waste of resources and is a large contribution to environmental degradation.

From my research in 2009, according to an EPA report, the US Geological Survey estimated that 60% of materials flow in the US went to the construction industry. The EPA estimated that 92% of construction waste was from demolition and renovation and comprised 30% of all US annual waste. Another EPA report estimated that in the US, between 2000 and 2030, there will be 213 billion square feet of new or replaced building construction, which indicates the magnitude of future building resource demand and potential for waste.

Not managing end-of-life building materials is a serious waste issue that has worldwide implications for the environment, quality of life, resource availability and cost, and justice. Since Texas, including San Antonio, is one of the fastest growing areas of the country, it is a greater imperative that we address and minimize consumption of raw materials used in construction and landfilled construction waste.

Public and private sector research, education, regulation, initiatives, and support are necessary for the feasibility of deconstruction. If Sierrans and other local green building stakeholders do not act, we may end up with very weak commercial and construction waste recycling policies and continued poor practices.

This is also important because the Solid Waste Disposal Act of 1976 is a federal law that requires all states to develop individual plans to maximize waste reduction and recycling. Although there was a 1980 deadline, many states, including Texas, never developed plans. The law is still in effect and the EPA and cities could be sued for ignoring it.

Zero Waste Programs and deconstruction recycling are gaining ground in America but generally lag behind those of some other countries. San Francisco has the highest overall recycling rate in the US—80%--and California the most advanced deconstruction legislation and programs. The Netherlands, Belgium and Denmark have the highest deconstruction recycling rates—between 80 and 90%. So it is important to look beyond the US for ideas.

Please see our conservation page,

texas.sierraclub.org/alamo/conservation.htm, for several links to deconstruction information, including the stellar Dutch example of one of the most advanced deconstruction and waste minimization programs in the world.

Our June e-edition Alamo Sierran will have information on another important element in the green building toolkit that facilitates deconstruction, Design for Deconstruction (DfD). Alamo Group green building contact and architect John Hertz will explore the DfD movement, which encourages engineers and architects to design buildings that can be easily adapted, renovated and deconstructed.

-By Margaret Day, Chairperson, Executive Committee of Alamo Group

Events

For updates on all events check the Alamo Group website, <u>alamosierraclub.org</u>.

Battery recycling! Bring your spent small batteries to the meetings (excepting the socials) below and place them in the box provided. Thanks to Gay Wright for coordinating this initiative.

Group membership meetings at the Witte

Third Tuesday each month, 6:30 pm at the Witte Museum, 3801 Broadway. Free and open to the public. Free parking in the museum parking lot on Avenue B.

Lion's Field presentations

Fourth Wednesday each month, 6:30 pm, at the Lion's Field Adult Center, 2809 Broadway at Mulberry. Free and open to the public.

Socials

These informal get-togethers are from 6-8 pm. If you get lost or cannot find a venue, call Loyd Cortez on your

cell phone at 210-454-2052. Please check <u>texas.sierraclub.org/alamo/social.htm</u> the day of the social for cancellations due to weather or unforeseen developments.

Event Schedule

May 20 Tuesday

Witte Museum, topic: Everything You Wanted to Know about the Volt from a Sierra Club Member.

Russell Seal, the proud owner of an EV Volt (well, actually two of them), will talk about how well they perform, how well the grid handles them, and anything else you want to know about Volt ownership.

May 28 Wednesday

Lion's Field, topic: Adventure Travel in Andalusia, Spain, and Morocco

Alan Montemayor and Cheryl Hamilton share their experience traveling through Andalusia, Spain, and Morocco. Their travels cover the whole range from culture to nature, and are fascinating, educational, and comprehensive.

May 23 Friday

Social: La Fogata restaurant, 2427 Vance Jackson Rd. Join us on the patio for good Mexican food and a margarita.

June 17 Tuesday

Witte Museum, topic: UTSA's Texas Sustainable Energy Research Institute.

Dr. Les Shephard, Director, Texas Sustainable Energy Research Institute at UTSA will discuss the Institute and its many areas of focus, some of which are EE and Conservation, Wind Energy, Renewable Energy Technology Storage, and Solar Energy. To learn more about the Institute and Dr. Shephard here's a <u>link</u>.

June 25 Wednesday

Lion's Field, film showing: The End of the Line: The World Without Fish.

Scientists predict that if we continue fishing as we are now, we will see the end of most seafood by 2048.

Oceans without fish. Imagine your meals without seafood. Imagine the global consequences. This is the future if we do not stop, think and act.

The End of the Line chronicles how demand for cod off the coast of Newfoundland in the early 1990s led to the decimation of the most abundant cod population in the world, how hi-tech fishing vessels leave no escape routes for fish populations and how farmed fish as a solution is a myth.

The film lays the responsibility squarely on consumers who innocently buy endangered fish, politicians who ignore the advice and pleas of scientists, fishermen who break quotas and fish illegally, and the global fishing industry that is slow to react to an impending disaster.

-The above commentary is from <u>topdocumentaryfilms.com</u>.

June 27 Friday

Social: Candlelight Coffee House, 3011 N. St. Mary's St. One of our favorite places, it features good food and a nice quiet atmosphere.

July 15 Tuesday

Pot Luck Poetry Party! At the Witte Museum, Memorial Room, dinner at 6 pm, program 6:30-8:30 pm. Free and open to the public. Please bring a tasty dish for the potluck dinner.

This is our 3rd annual summer eco-poetry event. We are very happy to welcome back contributors:

- San Antonio's inaugural poet laureate Carmon Tafolla
- Bryce Milligan, eco-balladeer and Wings Press publisher
- Carol Reposa, editor of the arts-literary journal Voices de la Luna
- Jim LaVilla Havelin, San Antonio National Poetry Month organizer and Gemini Ink and Bihl Haus Arts poetry teacher
- Lahab Assef Al-Jundi , poet author of No Faith At All
- Mobi Warren, our emcee and Alamo Chapter poetess Rose Catacalos, Texas Poet Laureate, has been invited and we hope she will join us also.

These are top San Antonio poets that have previously read and really love this event. They are enthusiastic about returning. Their work often expresses deep connections to and concerns for the natural world.

Participants will be led by Mobi to contribute to a collective poetry-writing experience by crafting a line on a poetry banner.

July 23 Friday

Social: Chris Madrid's, 1900 Blanco Rd. A good place to have a tasty burger, salads, cold beer, and wine.

News

A Sustainability Plan for San Antonio

By Barbara McMillin

Five grad students in UTSA's Urban and Regional Sustainability class presented research at the April 15th Sierra Club meeting showing where we are now and where we need to be in 2040. Areas were water, energy, transportation and land use, waste, and climate. This was fascinating because all the information is there, and the recommendations for each area. What we use, distance we drive, carbon dioxide we need to reduce--it is all there in numbers. Creative new solutions are also presented in area of solid waste. Congratulations to the class for producing such a valuable resource for the public use. The class was fully engaged in learning the process of city planning and also researched various cities to learn about their sustainability plans. We wish the students well in their future pursuits. Also thanks to their professor, Bill Barker.

-For more info: the Rivard Report covered this event and the program with an article, <u>UTSA's Next Generation</u> <u>Imagines San Antonio 2040</u>. The <u>Rivard Report</u> is an online-magazine serving San Antonio's urban core.

San Antonio Energy Code Policies and Politics

By John B. Hertz, Architect, and Alamo Group Green Buildings Contact

San Antonio has been slow to adopt the new code changes that would reduce energy consumption in all new buildings. The City still operates under the 2009 IECC (International Energy Conservation Code), even though the International Code Council released the 2012 version early that year. Given the boom in construction here that has been fueled by the end of the 2008 recession and Eagle Ford dollars, among other forces, each year that passes without the adoption of the 2012 version means greater permanent energy consumption coupled with increased GHG (greenhouse gas emissions).

The IECC focuses on the construction of the building envelope, building insulation, efficiencies in mechanical systems and efficiencies in power systems. The code separates Residential and Commercial buildings and addresses them independently. It also divides the country into climate zones, which provide differing requirements for building components based on geographic area.

Why does it matter that the City hasn't moved more aggressively on this issue? It matters because buildings account for 40% of all energy use in the country: 22% for residential buildings and 18% for commercial. Most of that energy is utilized for heating and cooling (HVAC), as well as lighting in commercial buildings. The goal of the IECC is to reduce this consumption through improved construction and environmental systems. According to the U.S. Department of Energy, increased building energy codes and standards have the potential to save U.S. consumers an estimated \$330 billion by 2040. This equates to 93 quads of cumulative full-fuel-cycle energy savings and 7 billion metric tons of avoided carbon dioxide emissions.

What then are the significant differences between these codes? The very intent of the updated code signals the substantial differences between these versions. While the 2009 code refers to the "effective use of energy," the 2012 version adds "conservation of energy...over the useful life of the building." In general, the code is moving towards a heavier emphasis on building insulation and building envelope construction. In contrast, only minor changes have been incorporated for heating and building changes, the new regulations would require, among other things:

- Approximately 15% more energy efficient than 2009 IECC
- At least 75% high efficiency lighting, compared to 50% previously
- Greater building envelope tightness
- Radically reduced total duct leakage
- Ceiling insulation minimum R-value increases from 30 to 38
- · Installation of a programmable thermostat
- That attic accesses and doors need to be weatherstripped and insulated
- A circulating hot water system for all domestic hot water systems
- Insulation with R-value of 3 or more for all domestic hot water pipes

In a simulation done for three Texas counties by the Energy Systems Laboratory at Texas A&M, commissioned by the State Energy Conservation Office, they found that for single family homes, the energy savings for a typical house would vary between 19-25% if the 2012 code was imposed instead of the 2009 version.

There is resistance to these code changes from the construction industry and building owners, who have raised the specter of unaffordable housing prices. However, the truth is that San Antonio, will face some of the lowest additional costs of anywhere in the country. Even the National Multi-Housing Council and the National Apartment Association, who would be most affected by these changes, have calculated that in San Antonio, the changes from the 2006 to the 2009 IECC added only between \$300-400 per unit for low rise apartments and \$100-140 per unit for high-rise apartments. Adopting the 2012 code adds an additional \$600-700 per unit for lowrise apartments and \$900-1,600 per unit for high-rise apartments. This is but a small price to pay to reduce San Antonio's share of the almost 2.5 Billion Metric Tons of CO2 produced each year for energy production for buildings in the U.S.

It's ironic that by not adopting the 2012 code, the City is increasing future energy demand and driving up the profits from CPS, which in turn fuels the City's coffers. Maybe that's contributing to the foot dragging.

cooling equipment and power systems. HVAC and power systems changes can be accommodated by standard construction practices and commercially available equipment. Moreover, as they are largely regulated by federal appliance efficiency standards, the IECC has little impact on HVAC equipment choices.

In this short overview, it is impossible to address all the major changes that the 2012 code would require, but simply looking at the Residential



The Rio Grande from Hot Springs Trail, Big Bend National Park

Big Bend National Park Trips

Both the Alamo and Austin Sierra Club groups run outings to Big Bend National Park almost every year. The Alamo group did a six day outing last November which was covered in the December issue of this newsletter. We hope to do it again in February 2015.

Above is a photo taken in January by the newsletter editor on a popular trail. This was an amazing day of plunging temperature and very high winds.

Sierra Club Membership

Are you a member? Please join or renew!

Sierra Club E-mail Newsletters

The club has a raft of free newsletters. Below is the list from the index page with the signup links.

The Insider (biweekly). Our flagship newsletter.

Coming Clean. Executive Director Michael Brune's blog.

The Green Life (weekdays). Tips for living well and doing good.

Daily Ray of Hope (weekdays). Inspirational images from our users.

Currents (weekly). Holding our decision makers accountable.

The Explorer (monthly). Adventures with Sierra Club Outings.



Alamo Group of the Sierra Club

Website: alamosierraclub.org The Alamo Group is one of 13 regional groups within the Lone Star (Texas) chapter of the Sierra Club. National website: sierraclub.org

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Food for thought

We travel together, passengers on a little spaceship, dependent on its vulnerable reserves of air and soil, all committed, for our safety, to its security and peace; preserved from annihilation only by the care, the work and the love we give our fragile craft.

-Adlai Stevenson

US Congresspersons

Rep. Lamar Smith 821-5024 Rep. Joaquin Castro 684-6896 Rep. Henry Cuellar 271-2551 Rep. Pete Gallego 512-463-0566 Rep. Lloyd Doggett 866- 916-5921

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