Municipalidades y Ciudades de la Frontera Tamaulipas

Nueva Laredo
Nuevo Laredo
El Campanario y Oradel

Guerrero
Ciudad Guerrero

Mier
Mier

Miguel Alemán
Ciudad Miguel Alemán
Los Guerra

Camargo
Ciudad Camargo
Comales

Gustavo Díaz Ordáz
Ciudad Díaz Ordáz

Reynosa
Cuidad Reynosa

Río Bravo
Ciudad Río Bravo
Nuevo Prgreso

Valle Hermoso
Valle Hermoso
Anahúac
El Realito

Matamoros
Heróica Matamoros
Ramírez
El Control

Study Area: Tamaulipas-Texas Border

CENTER FOR SUSTAINABLE DEVELOPMENT
The University of Texas at Austin
2014–2015 Annual Report
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It could go without comment that knowledge is produced in every school of architecture. Many words could be devoted to how any one school structures its efforts to improve the understanding of the built environment. In the 1960s, when many university programs started formal research centers, there was a clear divide between institutions that adopted models of research from scientific disciplines and those that pursued research agendas along the design professions’ traditional lines of thought. The polarizing distinction was, perhaps, necessary during the (then) new era of inquiry in order to clarify assumptions about means and ends. Today, this difference is usually more a matter of degree than of kind and both sides can claim their positions have been justified.

On the one hand, epistemological rigor borrowed from the sciences is widely recognized as critical to research practices in design schools. Moreover, concerns related to accurate measurement and validation of results have been carried beyond academia through the peer review and post-occupancy surveys of buildings and landscapes to verify if designs have, indeed, achieved intended results. On the other hand, the reflective and constructivist approaches used by planners and designers have been recognized as a way to gain insight on ill-structured or “wicked” problems and to effect purposeful change. Far beyond studios, design thinking is being used by people with J.D.s, MBAs, and M.D.s. So how can the creation of knowledge at
The University of Texas at Austin School of Architecture be characterized? This year, the Center for Sustainable Development conducted a strategic examination of the School of Architecture’s research capabilities. It included an inventory of research facilities, a review of the history of sponsored projects, and a survey of self-identified faculty research areas. At a glance, the final report catalogues the breadth of interests across the School. It shows continued attention to what have been longstanding themes of inquiry: buildings and building systems; sites and landscape systems; neighborhoods and districts; cities and regions; historic preservation; housing; public participatory planning and public interest design; and transportation. It also shows that there is increasing consideration for several new subjects: infrastructure and smart cities; built environment and public health; design thinking; Latin American architecture and urbanism; and materials, fabrication, and assembly. Combined, these established and emerging themes suggest topics through which the faculty sees planners and designers exercising agency.

Another critical detail about research in the School is the increasing amount of interdisciplinary work. Four sponsored projects undertaken in the past year exemplify how faculty and students are sharing perspectives, combining expertise, and offering new insights. First, Texas CityLab was launched as an experience-based environmental education initiative that connects the university with municipal agencies. Faculty adapts course assignments and creative problem-solving exercises to help address citizen needs. Communities benefit by having access to analysis produced through directed scholarly inquiry. Students benefit by learning how to put knowledge into action. The inaugural effort paired fifteen classes with the University of Texas Campus Facilities Office to address sustainability goals for an academic city of 70,000 people.

Second, a study commissioned by the Governor of Tamaulipas, México is helping to identify best urban planning and design practices for growing border communities. A central focus is on how towns can both accommodate more intensive development and increase the quality of life for residents. This topic that required looking at the urban environment at different scales—the site and building, the neighborhood, the town or city, and the region—and, accordingly, the research group included faculty, research fellows, and students from Landscape...
Architecture, Urban Planning, Community and Regional Planning, and Sustainability programs. The Center for Transportation Research and the Center for Research in Water Resources in the Cockrell School of Engineering were also engaged to complete parallel and coordinated projects for Tamaulipas.

Third, the Texas Historical Commission funded a study on the economic impact of protecting heritage sites across the state. Investigators from the School of Architecture’s Community and Regional Planning and the Historic Preservation programs along with collaborators from the Bloustein School of Planning and Public Policy at Rutgers found that preservation-related activity provides jobs for over 79,000 people in Texas and contributes $4.6 billion to the state’s gross domestic product.

Finally, the team for “Nexushaus,” an entry in the U.S. Department of Energy’s Solar Decathlon competition, designed and built a residence that generates more electricity than is used by its occupants. The structure, building envelope, and building services have been optimized as an integrated system using the array of expertise from project participants from design and engineering programs in the School of

Architecture, the Civil, Architectural, and Environmental Engineering Department in the Cockrell School, and the Technische Universitaet Muenchen (TUM).

This past year has seen many successful efforts to support long-term environmental resilience, economic prosperity, and social equity. Overall, it can be said that the grasp of research skills continues to strengthen and the reach of influence continues to extend. Looking forward, the Center for Sustainable Development is committed to increasing the number of faculty and students who participate in sponsored research.

ALLAN W. SHEARER, PH.D., ASLA
RICHARD L. CORSI, PH.D., P.E.

Co-Directors, Center for Sustainable Development
The University of Texas at Austin
CSD BY THE NUMBERS

$748,553
Amount of funding awarded
(with an additional $583,072 pending)

30
Grants Written

33
GRAs Employed

2014-2015 Statistics

12
Events Held

16
Research Projects Conducted

6
Portfolio Program Students
CSD EXPERTISE

Current Themes

• Buildings and Building Systems
• Sites and Landscape Systems
• Neighborhoods and Districts
• Cities and Regions
• Historic Preservation
• Housing
• Public Participatory Planning
  and Public Interest Design
• Transportation

Emerging Themes

• Infrastructure and Smart Cities
• Built Environment and Public Health
• Design Thinking
• Latin American Architecture and Urbanism
• Materials, Fabrication, and Assembly

2014-2015
Allan W. Shearer
Co-Director
Allan W. Shearer teaches graduate-level landscape planning and design studios and courses that bridge the Landscape Architecture and Community and Regional Planning programs. His research centers on how individuals, communities, and societies create scenarios of the future and how these descriptions of possible tomorrows are used to inform present-day decisions. Focusing on issues relating to the built environment, his work engages the expansion of the conceptual frameworks of scenario-based studies and also the methodology by which they are developed. A particular application of his research has been understanding the long-term role of military lands, which contribute to both national security—by providing training and testing areas—and environmental security—by sustaining the natural processes that contribute to a society’s well being, such as clean air, clean water, and native biodiversity.

Richard L. Corsi
Co-Director
Richard is the ECH Bantel Professor for Professional Practice in the Department of Civil, Architectural and Environmental Engineering at The University of Texas at Austin. He received his M.S. and Ph.D. degrees in Civil Engineering from the University of California, Davis. Richard and his students study sources of, and human exposure to, indoor air pollution, indoor chemistry, and innovative, low-energy strategies for improving indoor environmental quality. He teaches undergraduate courses in fluid mechanics and indoor air quality, and graduate courses in indoor chemistry and human exposure to indoor air pollution. He has served as major advisor to nineteen Ph.D. students, forty-eight M.S. students, and forty-seven undergraduate research assistants. Richard is also faculty advisor to the University of Texas Student Chapter of Engineers for a Sustainable World.
Sarah Wu
Senior Program Coordinator
As Program Coordinator for the CSD, Sarah writes and prepares grants for the School of Architecture, coordinates faculty and research teams, and serves as a liaison with various offices at University of Texas, while helping to direct a dynamic and hands-on CSD research team. Prior to her work at the CSD, Sarah worked as an environmental and transportation planner. She has a B.S. in environmental science from UC Berkeley and an M.S. in Community and Regional Planning from The University of Texas at Austin.

Allyssa Hrynyk
Research Fellow
Allyssa joined the CSD in 2014. As a Registered Professional Planner with a focus in urban design, she holds a Master’s degree in Urban Design Studies from the University of Toronto and a Bachelor of Environmental Studies in Planning—Urban Design from the University of Waterloo. Building on her passion for urbanism and great places, areas of expertise include planning policy, development approvals, and the application of urban design techniques.

Susan Rieff
Senior Research Fellow
Susan Rieff is an expert in sustainability and resource protection with thirty years of experience directing major policy initiatives in Texas and nationally. In 2004, she became Executive Director of the Lady Bird Johnson Wildflower Center. She led the center’s transition from a non-profit organization to a research unit of The University of Texas at Austin in 2006 and spearheaded its growing recognition as a national leader in landscape sustainability and plant conservation. In the spring of 2015, Susan joined the Center for Sustainable Development as a Senior Research Fellow.
Steven Moore
Bartlett Cocke Regents Professor in Architecture

Elizabeth Mueller
Associate Professor of Community & Regional Planning and of Social Work

Attila Novoselac
Associate Professor of Civil, Architectural, and Environmental Engineering

Michael Oden
Associate Professor of Community & Regional Planning

Robert Paterson
Associate Professor of Community & Regional Planning

Mark Simmons
Lecturer of Landscape Architecture
Director, Ecosystem Design Group, Lady Bird Johnson Wildflower Center

Bjørn Sletto
Associate Professor of Community & Regional Planning

Frederick Steiner
Dean, School of Architecture
Henry M. Rockwell Chair in Architecture

Wilfried Wang
Professor, O’Neil Ford Centennial Chair in Architecture

Dason Whitsett
Lecturer in the Sustainable Design Program

Patricia Wilson
Professor of Community & Regional Planning

Robert Young
Assistant Professor of Community & Regional Planning

Ming Zhang
Associate Professor of Community & Regional Planning

Steve Bourne
Research Associate, Thermal Lab
Research Focus: radiant barrier systems; integration of phase-change thermal storage media into building materials and their impact on peak energy demand.

Darren Cattle
Research Associate, Thermal Lab Coordinator
Research Focus: software development; interactive electrochromic glazing facade systems; integrated smart homes, lab construction and testing.

Catherine Carter
Research Associate, Portfolio Program
Research Focus: sustainability education; interdisciplinary sustainability collaboration; service-learning; local experiential education.

Shannon Harris
Research Associate, Beautification Movement
Research Focus: comparing beautification policies of the Johnson Administration with Green City Initiatives.

Kevin Howard
Research Associate, Best Practices Tamaulipas
Research Focus: border cities; urban growth; best practices in urban form, transportation; economy, infrastructure, ecology/open space, and equity.

Tom Hilde
Research Associate, Sustainable Places Project, Project Connect, Envision Tomorrow Plus (ET+) applications, NATO Urbanisation Project
Research Focus: sustainable land use planning and urban development; scenario planning; geographic and planning information systems.

Vishal Joshi
Research Associate, Historic Preservation in Texas
Research Focus: design, layout, and graphics, maps and illustrations specific to the context; image collection with citations for the Economic Impacts of Historic Preservation in Texas report.

Student Associates

Steve Bourne
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Research Focus: radiant barrier systems; integration of phase-change thermal storage media into building materials and their impact on peak energy demand.

Darren Cattle
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Research Focus: software development; interactive electrochromic glazing facade systems; integrated smart homes, lab construction and testing.

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Vishal Joshi
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Research Focus: design, layout, and graphics, maps and illustrations specific to the context; image collection with citations for the Economic Impacts of Historic Preservation in Texas report.
Jose Latorre  
Research Associate, Public Interest Design & Best Practices Tamaulipas  
Research Focus: citizen engagement; digital interface development & learning applications; urban and regional planning practices for growing cities.

Leigh Raderschadt  
Research Associate, Historic Preservation in Texas  
Research Focus: case studies for Texas Historical Commission programs such as Texas Historic Courthouse Preservation and Texas Main Street.

Patrick Russell  
Grants & Sustainability Portfolio Coordinator  
Research Focus: faculty grants; student grants; sustainability related grants; sustainability education.

Yureisy Suarez  
Research Associate, Best Practices Tamaulipas  
Research Focus: border cities; urban growth; best practices in urban form, transportation, economy, infrastructure, ecology/open space, and equity.

Kaethe Selkirk  
Research Associate, Texas CityLab & PID  
Research Focus: post-industrial landscapes; water resources & the built environment; sustainable economic development.

Megan Shannon  
Grants Coordinator  
Grants Coordinator for the CSD, supporting faculty within the School of Architecture in all aspects of their research endeavors.

Neive Tierney  
Research Associate, LAF Case Study Investigation  
Research Focus: landscape architecture; environmental, social, and economic benefits; performance measures.

Sam Tabory  
Research Associate, NATO Urbanization Project  
Research Focus: future of cities; urbanization trends; urban resilience/fragility; city governance.

Noah Winkler  
Research Associate, Public Interest Design  
Research Focus: MRC community engagement; urban farming and community gardening in Austin; floodplain infrastructure; local food systems.
CURRENT PROJECTS

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Inquiry
How does one manage rapid urban growth along border cities so as to ensure sustainable prosperity?

The University of Texas at Austin was commissioned by the State of Tamaulipas Department of Urban Development and Environment and its energy agency to complete a three-component study related to urban growth and the energy industry. In parallel with the related components of transportation and water infrastructure, which will be completed through the Cockrell School of Engineering, the CSD research is focused on the orderly growth of cities and best practices related to urban planning and design. The first phase of this work shares Texas’ best planning and urban design experiences with Tamaulipas and assists with development of project support that will increase the effectiveness of planning practices.

Impact
The organization of urban structures and the administration of land use and development performance measures are fundamental means by which government ensures the health, safety, and welfare of citizens. Good planning generates productive, mutually-reinforcing physical relationships among the parts of a community—housing, education, recreation, business and industry, infrastructure—providing a basis for sustainable prosperity. Conversely, poor planning weakens these relationships.
Planning during periods of rapid growth is particularly difficult in that there must be a balance between meeting near-term needs and achieving long-term goals. Coordinating smaller, local planning within the larger, regional planning is needed to ensure that the smaller scale does not impede the needs of the region and vice versa: that the steps the region takes can accommodate local needs. Several Texas cities along the border, including Brownsville, El Paso, Laredo, and McAllen, have recently grown dramatically. Given similar driving forces of change, the experiences of these and other municipalities in Texas provide a starting point for an assessment about which practices are appropriate for managing growth on the other side of the border in Tamaulipas, México.

Next Steps

Following the completion of Phase One, the team will work with state and local planners to address site-specific growth management challenges by preparing planning and design options for one to three sites within the border region of Tamaulipas. This Phase Two project will build upon Phase One and produce information and analyses supporting specific strategic planning decisions related to the management of urban growth impacts in urban areas expected to experience rapid changes.
Inquiry
Can a river’s cultural and ecological significance be preserved despite development pressures?

This collaborative studio was funded by the Municipal Planning Institute of the City of Chihuahua (IMPLAN), in the State of Chihuahua in northern México to develop a conceptual master plan for the non-channelized, twenty kilometer section of the Chuviscar River between the city of Chihuahua and the town of Aldama. The river is still a significant natural resource for this city of 800,000 people in the high Chihuahuan Desert. When the Spanish arrived to the territory in the sixteenth century, and later founded the city of Chihuahua in 1709, the riparian forest had already coexisted with agricultural practices of Native Americans for centuries. Today, this section of the river sits in the eastern valley of the city where most of the new developments and real estate pressure are happening.

There is a unique opportunity to restore and preserve the river and agricultural practices while making it accessible to the population as a public amenity. This can shift the prevailing paradigm of concrete channeling in the region towards a new model of ecological restoration and urban integration. IMPLAN requested that the project be a studio of the Master of Landscape Architecture program at The University of Texas School of Architecture. The three projects developed by the landscape architecture studio were delivered to IMPLAN in January, 2015.
Impact

The prevailing infrastructural paradigm in this region of México continues to rely on hard or grey infrastructure with little capacity for ecological services. The local IMPLAN is using this project as an opportunity to disseminate a new model of infrastructure, educate the population (and particularly the local political, technical, economical, and academic communities) and as a tool to search and secure funding. IMPLAN is aggressively using the project as part of its innovative initiatives.

Next Steps

IMPLAN is currently disseminating the project within the city government and local community. Future expected events include a public exhibition of the projects and press conferences. Project coordinator and Assistant Professor Gabriel Diaz Montemayor will present at the annual meeting of the Mexican Society of Landscape Architects, to be held in Mexico City in November 2015.
Inquiry
How might cities maintain unsubsidized affordable housing along popular transit corridors?

Many cities are attempting to foster new development or reshape the existing urban form to support greater use of transit and non-motorized modes of travel. Recent research has documented the often negative impact that the introduction of light rail transit can have on low income renters in central neighborhoods. Specifically, low income households are often priced out of transit corridors by redevelopment. Displaced transit-dependent households sometimes face dramatic increases in their transportation costs—most likely at the expense of other critical households needs.

Compounding this challenge is the fact that the aging—but unsubsidized—rental housing stock typically serves as a city’s largest source of affordable housing. With fast-rising land costs and shrinking public resources, replacing the affordable rental housing stock with newly constructed affordable housing would take years and likely not replicate the transit access of the current stock. In contrast, rehabilitation of existing housing typically costs one-half to two-thirds as much as new construction and ensures ongoing access to transit networks.
Impact

Cities need to act strategically. The research conducted under this grant is aimed at developing replicable methodologies for identifying zones where (unsubsidized) affordable rental housing is likely to be redeveloped as planning initiatives intersecting with market trends, prioritizing among such zones, and selecting particular housing types to invest in and preserve as affordable housing. The research uses Austin as a testbed since the bulk of the city’s existing multi-family stock was built during the apartment construction boom of the 1970s and 1980s and is likely to be similar to stock elsewhere in the sunbelt.

The research compared eight Austin corridors using measures capturing the benefit of the location to low wage workers, the potential for loss of affordable rental units, and current development pressure. These corridors were chosen because they include many aging rental properties.

The analysis revealed the variation in conditions across corridors. The two corridors with the lowest development pressure—Crestview and East Riverside—have large stocks of affordable rental housing and provide good access to low wage jobs via transit. Of the two, Crestview scores higher on job access, while Riverside contains almost twice as many affordable apartments. These two corridors likely offer the most cost-effective preservation opportunities.

Next Steps

In the Fall of 2015, the report will be finalized and an exhibit created to tell the story of these corridors. These final steps will emphasize how preservation metrics and strategies can be used to create more inclusive corridors as the city grows.
The University of Texas at Austin partnered with Rutgers University for the second time to report on the impacts of historic preservation on the state’s economy. Commissioned by the Texas Historical Commission (THC), the purpose of the study was to quantify and qualify the economic contributions of historic preservation in Texas, updating a previous study done in 1999 by the same team. This time, the analysis was expanded to include new programs that have been added to the THC’s arsenal of preservation tools since the completion of the 1999 study. The study revealed seven major conclusions regarding why preservation is important to the Texas economy:

1. Texas heritage attracts tourists.
2. Historic preservation supports Texas jobs.
3. Historic rehabilitation rebuilds communities.
4. Investment in historic county courthouses makes great economic sense.
5. Revitalization of Texas Main Street communities makes good business sense.
6. Incentives for historic properties attract significant reinvestment.
7. The 700 Texas history museums bring economic vitality to communities.
The research told a compelling story: historic preservation is a major industry in Texas. In 2013 preservation activities in Texas generated more than $4.6 billion of state gross domestic product and supported more than 79,000 Texas jobs. This produced significant net tax revenue for both state and local governments in Texas, equaling over $290 million annually.

Heritage tourism alone made the biggest economic impact with $2.25 billion in spending and supported 54,204 Texas jobs. Historic rehabilitation contributed $772 million in spending and supported 15,398 Texas jobs.

In addition to reporting the quantitative benefits, the study included analysis regarding the qualitative impacts realized through the THC programs and their benefit in communities, particularly in smaller, more rural regions.

This study provides valuable information to help Congress, local leaders, and citizens make informed decisions about balancing their community’s cultural and economic resources. The study was conducted in part as a support tool for the THC to present confirmed evidence of the positive economic effects of historic preservation to the state legislature. THC’s budget and programs are being discussed during this year’s session.

Next Steps

The results of the study were presented to the THC at the end of January 2015 in the form of an Executive Summary. A copy of the study can be found on the THC’s website at: http://www.thc.state.tx.us/news-events/press-releases/seven-ways-historic-preservation-makes-big-economic-impact-texas.
Inquiry
What are the quantifiable outcomes and performance measures of recent landscape architecture projects in Central Texas?

The Landscape Architecture Foundation (LAF) is a national organization that aims to enhance the environment through landscape architecture. The organization provides scholarships and funds through the Case Study Investigation Program. This program supports faculty-student teams to conduct studies on the environmental, social, and economic benefits of progressive landscape architecture projects.

Through the summer of 2015, The University of Texas at Austin conducted case study investigations on three landscape architecture projects:

1. The Belo Center for New Media on The University of Texas at Austin campus, designed by Ten Eyck Landscape Architecture
2. The George W. Bush Presidential Library in Dallas, TX, designed by Michael Van Valkenburg & Associates
3. The Bagby Street Reconstruction in Houston, TX, designed by Design Workshop.

Impact
By working directly with the design firms of these projects, this program offers a unique opportunity to create methods of quantifying
successful design decisions and outcomes. These methods are then used as a means for measuring sustainability and creating performance measures that can be used to evaluate other projects and assist in the design of future sustainable landscapes. Creating a metric for sustainability can assist in campus planning and management activities by providing a baseline for comparisons and by exhibiting quantitative and qualitative data on previous successful landscape architecture projects.

Next Steps

The reports completed in mid-August 2015 will be available through the LAF Performance Series website http://landscapeperformance.org/.
Inquiry
What should NATO know about a city’s urban context before it ever considers intervening there?

The CSD developed a research paper to explore the future of the urban environment through 2035 in support of the North Atlantic Treaty Organization’s (NATO) Urbanization Project. The paper outlines the city as an analytic unit, diagramming important considerations of morphology, flows, socio-political dynamics, and economic relationships that will likely define the urban environment during the next few decades. A series of ten city profiles form the basis of the report, allowing for grounded analysis and fact-based recommendations. The geographic reach of the paper intentionally covers extreme ends of the urban spectrum, from London to Kinshasa.

Impact
With more than half of the world’s population living in urban areas, NATO’s ability to fulfill its core functions depends on its ability to more fully understand the urban environment. The paper presents a roadmap for how to begin asking the right questions when faced with the possibility of having to intervene in an urban context. The goal of the paper is to support nuanced and responsible analysis of cities and urban terrain in an operational environment.

Next Steps
Content produced will be used for a School of Architecture seminar course in the spring of 2016. This research will also contribute to larger NATO Urbanization Project efforts in the future.
Inquiry
Can software-enabled indicators better inform our urban planning, transportation, and development decisions?

The Center for Sustainable Development was contracted to model the impacts of a high-capacity transit investment in Austin using the Envision Tomorrow Plus (ET+) scenario planning software suite, developed in part by a University of Texas research team as part of the HUD Sustainable Places Project (2011-2014). The study evaluated the impact of the proposed Project Connect urban rail alignment in terms of the consequences from a “no build” and “build” perspective for the year 2030. The Envision Tomorrow Land Use and Development Analysis enabled the assessment of plausible economic development, sustainability, and transportation outcomes. While the indicators describe benefits of high-capacity transit, the study also utilized 3D visualization in order to capture the changes to urban form expected from the addition of high-capacity transit.

Impact
Significant academic literature in the United States reveals that high-capacity transit investments, particularly urban rail, often have substantial land use impacts in addition to the benefits of reduced vehicle use. The ET+ software tool enables the assessment of future land use scenarios using state-of-the-art analytics that move beyond traditional economic development estimates. The analysis utilized inputs from market tested building prototypes, producing reliable estimates that would likely play out in a real-world context.
This research was able to capture these shifts in terms of sustainability impacts, including substantial reductions in internal water use, landscaping water use, waste water generation, and energy use. The addition of a high-capacity transit station creates a shift in market attraction for more efficient building typologies that have smaller unit sizes, consume fewer resources and create less waste. The high-capacity transit also attracts mixed-use building typologies and more intensive development than what would typically occur in the project horizon without the transit investment. This includes vertical mixed-use typologies, placing more housing units above retail and commercial spaces.

As a consequence, the ET+ MXD transportation model predicted a nearly eight percent reduction in vehicle miles traveled for the corridor with the addition of high-capacity transit, with other benefits such as increased walk and transit trips and reduced monthly transportation costs.

The project also utilized 3D visualization technology to convey the likely changes to urban form that would occur in high-capacity transit station areas. The visualization highlighted stunning transformations of several station areas into places that provide residents and employees access to amenities in close proximity, reducing the need for automobile trips and instead encouraging walking, cycling, and the use of transit.

**Next Steps**

In future projects, the CSD will continue to use the Sustainable Places Project suite of scenario tools (based largely on the Envision Tomorrow Plus scenario planning software) to analyze a crosswalk between several alternative land use and urban form futures. The CSD will also work to assist localities in better understanding the resilience of post-disaster recovery decisions as well as their choices for reducing future social, economic, and environmental losses.
Inquiry
How might universities connect students and their varied interests and design ideas to the current needs of the public?

Public Interest Design (PID) is a summer program supported by the Center for Sustainable Development within the School of Architecture. Through rigorous exploration of how each of these interests affects design, PID enables students to develop theoretical and practical skills to respond to the ethical complications of engaging the public and its spaces.

There were two PID projects in the summer of 2014. The first project, entitled the Green Alley Demonstration Project, completed a multi-year effort to transform an East Austin alleyway into a piece of sustainable urban infrastructure. Students were challenged to reveal ways in which alley space could become an asset for the surrounding community. Working with a diversity of residents to design and build critical ecological and social elements, environmental and community inclusion were emphasized throughout the design process. Two critical, built components were developed: wildlife habitat and structural opportunity for human interaction. These elements merge at the alley’s edges, where gabion walls that provide habitat and planting space are paired with wooden elements for human rest and touch. Woven together, they create a space for people to interact with each other and their surroundings. The project serves as a prototype for Austin’s Green Alley Initiative.

The second project, titled The Stacks, was the product of a National Endowment for the Arts Design award to create a quasi-mobile
community design and education hub for the Austin area, which moves around the City in partnership with the City of Austin Public Library system. The Stacks connects community members with an array of multi-media and storytelling tools intended to help them understand the impact of different planning and design choices. The structure includes a huge chalkboard, detailed as a map of the entire City of Austin, infused with various questions meant to incite participation and engender reflection on living in Austin. Included with The Stacks are a few dozen prompts for visitors to respond to and to start the conversations. On the digital interface, The Stacks also serve as a portal to a suite of different online apps meant to either teach about or engage residents in sustainability and community design challenges.

Impact

PID provides students a unique opportunity to practice socially and environmentally responsible design, highlighting that designers are not just accountable to their clients, but to all individuals, ecosystems, and entities affected by their work. Students engage directly with end-users, merging professional and local expertise to develop design interventions that respond to specific socio-cultural needs. Following a community-driven approach, stakeholder engagement begins in the earliest stages of the planning process, allowing participatory, co-design methods to take root.

The relevance of the PID program is threefold. First, it offers students a critical understanding of the theory that underlies the Public Interest Design movement. Second, it provides a real-world service-learning opportunity where students can apply design, engagement, and evaluation skills in service of underserved communities. Third, it connects students with the larger PID community, allowing for like-minded individuals to meet and for new leadership to emerge.

Next Steps

The 2015 Advanced DesignBuild Studio and Engagement Seminar offers approaches that empower students to become better socially-minded designers and to apply critical design thinking to complex social and ecological problems. Students in 2015 will work closely with the City of Austin’s Food Policy Manager in the Office of Sustainability and with the Multi-Cultural Refugee Coalition of Austin to develop, design, and implement approaches for a sustainable urban agriculture strategy.
Inquiry
How can a user-friendly digital media platform be used to empower communities and inform their design goals?

Following the success of PID 2013-14: The Stacks project, The Stacks 2.0 is a complementary project that provides a digital interface to facilitate user interaction and extend The Stacks experience beyond the chalkboard map. The Stacks 2.0 is a web-based, digital user interface that increases the functionality and ease of navigation between eight applications that are aimed at addressing the original mission of The Stacks.

Just like the original physical installation, The Stacks 2.0 incorporates the feedback of diverse stakeholders and relies substantially on user experiences with the previous interface. The new interface includes bilingual instructions for users, and can be easily updated and maintained. Please see The Stack’s digital mapping application “Mark the Map” at http://utw10077.utweb.utexas.edu/leaveYourMark.html

Impact
In addition to its role as a forum for community conversation, The Stacks 2.0 offers an opportunity for public offices, such as the City of Austin’s Office of Sustainability, to display content related to sustainability efforts in the city. The Stacks 2.0 offers the Office of Sustainability, the Austin Public Library, and the Center for Sustainable Development the
opportunity to get direct citizen input to better inform future place-making. The Stacks 2.0 project has allowed for further interaction with Austin Public Library regarding the successes and failures of The Stacks. The interaction between the CSD and Austin Public Library has provided continuous feedback and enabled a learning process for future projects and public use of the installation.

The librarians have been a valuable source of useful feedback and enthusiastic promoters of The Stacks. The chalkboard map of the installation has been popular amongst users, extending the popularity of the chalkboard to the digital interaction portion of the installation.

The Stacks are an installation that engages library visitors in reflection and conversation about their neighborhoods and their city. We ask you to consider the places you know and to share your thoughts, experiences, concerns, and questions.

How to use The Stacks?
MULTIPLE TOUCH
USE YOUR FINGERS
USE TOUCH PAD
USE ON-SCREEN KEYBOARD
ERASE
DON'T USE OBJECTS ON THE SCREEN
SHARE ON MEDIA
#THESTACKSAUSTIN

Next Steps

The Stacks has visited the Carver and Faulk library branches and will soon be moving to another branch library. The Stacks 2.0 will be installed in the new central library when it opens in 2016. The Stacks will spend about three months at nine branch libraries and the Faulk Central Library before landing at the new central library in 2016.

Social media serves as a medium to register the design, building, and public interaction of The Stacks. If you happen to stumble upon The Stacks in your local branch library, share your experience on social media under the hashtag #thestacksaustin.
Inquiry
Can an accessory dwelling unit be made affordable, comfortable, and sustainable?

The University of Texas at Austin and Technische Universitaet Muenchen (TUM) is competing in the 2015 United States Department of Energy Solar Decathlon.

Affordability is the theme of the University of Texas/Technische Universitaet Muenchen NexusHaus. The team will demonstrate the potential of combining energy and water to design a prototype of an Alley Flat, an affordable Accessory Dwelling Unit (ADU), as a unit of production that can easily augment an existing neighborhood’s infrastructure without increasing demand for energy and water. The design will be developed for Central Texas and will respond to its physical and cultural climate.

The design concept for the NexusHaus has been driven by the following overarching ideas: urban infill strategy via ADU development; affordable green building design; energy-water nexus; space extension; and smart technology.

Impact
The approach leads the team to consider current and future scalability of distributed renewable energy technologies. By establishing ADUs as units of production, we allow them to offset the costs of their own utilization by harnessing natural and other resources that would
otherwise be considered waste and a burden on infrastructure. Furthermore, the impact on the environment and on the regional power generation, as well as water supply and water treatment, is being reduced.

Next Steps

Once construction is complete the Solar Decathlon competition will take place in October of 2015 at Orange County Great Park in Irvine, California. During the week-long competition the homes designed and built by student university teams will be open to the public free of charge—giving visitors the opportunity to tour the houses, gather ideas to use in their own homes, and learn how energy-saving features can help them save money. During the course of the week each team earns points through ten contests, either juried or measured, that are designed to gauge a house’s performance, livability, and affordability. For more information please visit the project website at: www.nexushaus.com
Inquiry
How might a city become a student laboratory and how might students serve as a city’s consultants?

Texas CityLab (TCL) is an experienced-based, interdisciplinary, applied learning program that partners Central Texas communities with university courses and resources. Sponsored by The Center for Sustainable Development (CSD), TCL strengthens sustainability in the built environment. Each year, TCL contracts with one Texas city. Together, CityLab personnel and city officials identify sustainability projects for existing university classes to address. TCL program staff then enlist between ten and twenty university courses to tackle these projects, harnessing the energy, enthusiasm, and research of faculty and students across campus departments. At the end of the academic year, TCL presents the partner city with a report of student- and faculty-led analyses, best practices, and proposed designs. TCL results in sustainability progress for communities, meaningful learning and professional development for students, and an opportunity for faculty to link classroom work to life outside the university.

In its inaugural 2014-2015 academic year, Texas CityLab partnered with University of Texas Campus Planning & Facilities Management (CPFM). Over the course of two semesters, fifteen classes in multiple disciplines undertook sustainability projects on campus, jointly addressing issues identified by CPFM and Texas CityLab. Working with the University of Texas’ Facilities and Operations team and in alignment with the Campus Master Plan goals, courses were structured into the following five project...
areas: Waller Creek, Wildlife and Biodiversity, Value Proposition of Sustainability Initiatives, Zero Waste, and Living Laboratory: Bridging Energy & Water Conservation with Academics.

Individually, each course provided direct analysis of a pressing sustainability issue on campus. In one classroom, for example, civil engineering students redesigned stormwater drains near Speedway. CPFM can use this work to slow and redirect runoff away from Waller Creek. In another class, students engaged waste audits across campus to inform community consumption recommendations and recycling campaigns. CPFM can use this work as the foundation of communication and design strategies that encourage behavior change across campus. Together, the projects provide an interwoven, comprehensive, and fresh understanding of the “city” in our backyard, the 70,000-person University of Texas campus. CityLab’s work with CPFM culminated in a symposium where student researchers presented their work to community leaders and peers. All research has been compiled into an annual report that includes environmental, infrastructural, and policy recommendations.

Impact

TCL connects university resources to Central Texas cities that are experiencing both advantages and challenges associated with rapid economic and urban growth. Between 2000 and 2011, Central Texas was one of the fastest-growing metropolitan areas in the country. This growth produces significant environmental threats and can create a gap between the people benefiting from Central Texas’ economic expansion and those left behind. Simultaneously, rapid development puts pressure on city staff. Many Central Texas cities struggle to react with sustainable strategies, lacking specialized personnel and resources. TCL responds to these pressures, working towards improving quality of life conditions within and around cities while simultaneously expanding the problem-solving capacity of the future workforce.

Next Steps

Texas CityLab will partner with Leander, TX in the 2015-2016 academic year to develop research projects that support the city’s sustainability needs and goals. Located twenty-five miles outside of Austin, Leander is uniquely positioned to work with CityLab due to its proximity to student, faculty, and staff resources on campus. All participants will have the opportunity to travel to the city, learning first-hand about the relationship between development and sustainability, and how community-driven research can positively impact a growing and increasingly vibrant city.
Inquiry
How did Lady Bird Johnson’s beautification advocacy contribute to the recent sustainability movement?

May 2015 marked the fiftieth anniversary of the White House Conference on Natural Beauty, championed by Lady Bird Johnson. The ideas from this conference were embodied in a term called “beautification.”

Today, physical beauty is often associated with success and prestige. Yet, this slanted vision of beauty diminished its potential for Mrs. Johnson. Mrs. Johnson was aware that creating a more pleasing aesthetic could actually make a difference in the problems of the city and its suburbs, including its economy. She sensed that aesthetics could promote action and action was necessary to overcome the problems they faced: an idea explored in L. Hosey’s book, The Shape of Green: Aesthetics, Ecology, and Design.

Research proved Johnson correct and now indicates that unkempt areas tend to fall victim to crime and vandalism. Greener environments also promote health, and when people are exposed to nature, their psychological health improves.

Further, the campaign for natural beauty that began in Washington embodied a holistic framework for design. Mrs. Johnson enlisted the help of leading planners, landscape architects, and conservationists at the time. With their help, new plans promoted ways of working with environmental constraints, not against them. Ian McHarg, landscape architect and planner, and...
Lawrence Halprin, landscape architect, helped form new ideas about how the beauty of natural systems could work in cities. With the current emphasis on the effects of climate change, these pragmatic methods are receiving renewed attention.

**Impact**

The White House Conference on Natural Beauty launched Mrs. Johnson and her actions into the national spotlight. The principles of sustainable design would not have reached their current level of awareness without her vision. Sustainable design programs at universities and colleges would not exist without the understanding and passion she brought to conservation. In 1965, her ideas, though not entirely new, were not publically well known. Through her platform, Mrs. Johnson championed natural beauty as inducing social stability and healing in cities, a timely notion in the turbulent mid-1960s. She reached audiences from small-town garden clubs to leading environmental pioneers. Her vision was simple though profound: natural beauty satisfies something deep within the soul, and it is an indispensable component of our collective health.

The natural beauty movement was more than planting flowers. It was important enough to devote an entire White House Conference to it in 1965. The program expanded the rhetoric about the benefits of beauty and its ideas are echoed in today’s sustainable principals. Without Mrs. Johnson’s leadership and incredible insight, a holistic view of the benefits of a better environment might have been delayed by years or not have developed at all.

**Next Steps**

The research will be developed into articles for journals and magazines. The CSD will promote the fiftieth anniversary of the White House Conference on Natural Beauty in order to bring attention to the enduring principles embodied in the Conference and the work it empowered.
Inquiry
How can we help spur innovation in façade design, wall construction, and heat transfers?

The two Thermal Labs at the University of Texas at Austin comprise an outdoor testing facility for state-of-the-art research on innovative façade design. They make the consideration of both fully and partially air-conditioned rooms possible and allow researchers to simultaneously evaluate the energy demand, room climate conditions, and daylight provision of different façade variants.

The Thermal Lab provides a research laboratory for the school where architectural ideas can be tested in a rigorous control environment. The Thermal Lab is utilized by professors, visiting scholars, and students for cutting-edge research in the field of building material sciences.

In the past five years, thesis papers, Undergraduate Research Fellowships (URF), and University of Texas Green Fee projects have been successfully executed at the Thermal Lab. The CSD envisions and encourages more people utilizing this precious resource at the School of Architecture in the coming years and views it as a platform for students and faculty not only to design, but also to challenge design through testing and analysis.
Impact

The Thermal Lab is an important resource because it provides an academic institution with commercial-grade testing equipment that can be used in a variety of ways.

Within the School of Architecture, innovative ideas regarding sustainability and building surfaces are actively explored and interior conditions relative to human comfort are a significant part of designing at the human scale. The Thermal Lab can target individual surfaces and room configurations as a basis for experimental testing.

The Cockrell School of Engineering has played an important role in the support and building of the Thermal Lab. The Thermal Lab also provides a platform for engineering students to perform research relevant to their studies in wall construction, heat transfer, and mechanical and plumbing design.

Finally, the Thermal Lab provides an environment for testing façade designs or materials to determine whether they will actually function as intended.

Next Steps

The core of the scientific method requires that two things must exist, a control and an experiment. The second Thermal Lab was completed in the summer of 2015, with identical sensors and equipment that allow for proper use of the labs, as the dual control lab and experiment lab. In 2015-2016, a small event will be scheduled to demonstrate the capabilities of the labs and to generate faculty interest in using them.
Inquiry
How can chronic poverty and infrastructure failure be alleviated through local knowledge?

The International Research Experiences for Students (IRES) in Infrastructure Remediation in Informal Settlements in Santo Domingo, Dominican Republic (DR) is a trans-disciplinary, international research training program that brings together residents from the informal settlement of Los Platanitos with faculty from The University of Texas at Austin School of Architecture, Cockrell School of Engineering, Lyndon B Johnson School of Public Affairs, the College of Liberal Arts; staff from the University of Texas at Austin International Office; faculty from Universidad Autónoma de Santo Domingo (UASD); and researchers from the Dirección General de Ordenamiento Territorial (DGODT), the municipalities Ayuntamiento Santo Domingo Norte (ASDN) and Ayuntamiento Distrito Nacional (ADN), Centro de Investigación y Acompañamiento de Mujeres y Familia (CIAMF), and Fundación de Saneamiento Ambiental de la Zurza (FUNDSAZURZA).
This project was recognized by the ACIP (American Institute of Certified Planners) in 2015 with a national student project Award for Applied Research from the American Planning Association as an outstanding example of applied, participatory research in an international context with significant implications for comprehensive planning practice in developing cities.

**Impact**

The research training program is the first to integrate graduate students, slum residents, NGO representatives, and U.S. and foreign faculty members in a trans-disciplinary project that combines individual research with service learning in a large Latin American city. With the significant intellectual contributions of the Dominican project team, the goal of the IRES program is to document, analyze, and disseminate community-based remediation strategies to address inadequate infrastructure services, focusing in particular on the lack of sustainable, municipal solid waste, and storm water management.

**Next Steps**

This international research training program systematically documents adaptive strategies with the aim of producing an unprecedented, printed and online sourcebook of replicable infrastructure remediation models and a set of best practices for international service learning in marginalized communities in large developing cities. In each of the three year program, four IRES graduate students will first prepare at University of Texas at Austin in the fall semester and then receive training with five other graduate students during the three-week service learning course in Los Platanitos in the spring semester.
EMERGING PROJECTS

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Healthy High School Pride 84
Regenerative Rainwater Harvesting Systems 86
Inquiry

How does one balance ecological restoration with climate change, historic preservation and accessibility?

In the fall of 2015, the CSD will conduct a studio focusing on Cedar Pass in Badlands National Park, South Dakota. Lady Bird Johnson Wildflower Center staff will assist with efforts to reestablish native plants and varying the ecosystem functions. Led by Associate Professor Michael Holleran and Assistant Professor Benjamin Ibarra, students will investigate precedents and complete a site visit to conduct a landscape and restoration assessment.

Impact

Badlands National Park is located in western South Dakota. The multi-disciplinary studio and site visit will focus on collaborating with the National Parks Service to guide design and construction for infill and native vegetation for a long-term plan of sustainable rehabilitation of the Cedar Pass cultural landscape. The goal is to support the balance of the cultural and natural resources with issues of climate change, historic preservation planning, and accessibility with the growing number of tourists and local residents.

Next Steps

The studio class will meet during the fall 2015 semester, and the final jury will take place in Austin in December 2015. Another site visit to the Badlands by professors Holleran and Ibarra and four students will take place for the final presentations to the National Park Service administration staff in mid-December.
Inquiry

How might The University of Texas’ carbon inventory affect its overall sustainability goals?

In the 2015-16 academic year, the CSD will conduct a green-fee-funded research project building upon The University of Texas at Austin’s 2015 Greenhouse Gas Inventory and Carbon Risk Assessment. It will focus on the development and implementation of a campus “roadshow” that translates the results of the carbon footprint report into campus-wide messaging and a department level emissions assessment of building inventories and mitigation strategies.

Impact

Using the research report as a guide for meaningful projects and policy changes, the University of Texas can focus on mitigating its effects on climate change, preparing to adapt to a variable climate, and minimizing its future risk in a carbon priced market. This research will allow the University of Texas to create an innovative shared set of messages and visuals that communicate the results of the 2015 Report, a database of policy recommendations and success stories, and a “turn-key” program for departments to conduct their own emissions inventory and identify areas for reductions and improvement. The combination of these efforts will move the campus toward a goal to make meaningful reductions to its footprint by the 150th anniversary in 2033.

Next Steps

A Graduate Research Assistant will begin work in Fall 2015 to engage the middle majority of the University of Texas community. The team will work with the McCombs School of Business MBA + Leadership program, who will generate a business plan for marketing, outreach, and strategy.

Estimates indicate that The University of Texas at Austin produced a carbon footprint of 650,000 metric tons of CO2 equivalent for the 2013 fiscal year: the equivalent of 136,842 passenger cars. This estimate puts the university within a reasonable range of peer institutions, but above regional rivals.
Inquiry
How can indoor environmental air quality improve overall student performance?

Through the United States EPA’s Healthy School STAR (Science To Achieve Results) Research program, the CSD and the Cockrell School of Engineering are partnering with several school districts that seek to maintain high-quality indoor environments. This four-year partnership involves completing a detailed, multi-year field campaign to measure a wide range of environmental parameters (noise, lighting, indoor air quality) in high schools. The field campaign includes over 120 one- to two-week sampling events across participating high schools. The University of Texas team will also spend summer periods testing innovative, low-cost engineering approaches for improving high school interior environments. The goal of this study is to create healthy school environments that maximize student, teacher, and staff performance.

Impact
Schools face major challenges affecting both the health and performance of students and teachers. School buildings are vulnerable to environmental deficiencies because of inadequate budgets for operation and maintenance. Research is needed to find common roots of indoor air quality problems in schools and low-cost and sustainable solutions.

Next Steps
An important component of PRIDE is a STEM partnership formed between University of Texas researchers and high school student and teacher stewards. Beginning in the summer of 2015, workshops will provide high school stewards with tools for monitoring environmental quality and assuring good indoor environmental quality.
Inquiry
How might a design and engineering team rethink water management?

Innovation is needed to design multiple cost-effective rainwater harvesting systems that can be appropriately incorporated into the University of Texas at Austin campus. To address this critical need, the CSD will embark on a green-fee-funded project for the 2015-16 academic year to examine the potential for regenerative rainwater harvesting systems. Bridging design and engineering, the team will ensure that technical and aesthetic qualities are integrated in each system. Two Graduate Research Assistants (GRAs) will begin with a feasibility study to determine five possible rainwater harvesting demonstration sites.

Impact
The project develops innovative building-integrated rainwater harvesting systems that are socially, environmentally, and economically responsive to campus conditions. These systems will reduce water vulnerability, provide a substantial return on investment, and promote a green institutional identity throughout The University of Texas’ built environment.

Next Steps
Graduate Research Assistants in both Architecture and Engineering will begin work in Fall 2015 to design a variety of cost-effective water catchment systems building upon existing initiatives by developing and demonstrating innovative cost effective harvesting methods designed by and for the University of Texas community.
EDUCATION AND RESOURCES

Graduate Portfolio Program in Sustainability 90
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This program provides graduate students with a trans-disciplinary framework to study and research issues related to sustainability. The portfolio program is similar to a minor area of study or a certificate program at other institutions.

The portfolio program is one of the CSD’s core education initiatives. It provides students with a cohesive plan of study in sustainability, prepares them for leadership roles in academic and professional practice, and assists them in publishing research on sustainability topics. The program also fosters collaboration between graduate students and faculty members. The steering committee is made up of nine faculty members from programs in architecture, planning, engineering, education, public policy, and history. The student participants are equally diverse. Last year, the program admitted five graduate students, bringing the current student body to ten. Students come from programs in architecture, planning, historic preservation, geography, engineering, landscape architecture, and education.

Over the last academic year, the program hosted a series of campus-wide events, including information sessions, luncheon lectures, a video presentation workshop, and the annual Sustainability Symposium in April. This year’s symposium format was a film festival, where students presented their work in short videos. Visit the portfolio program website to check out their work. The number of Graduates from the Portfolio Program now totals forty-one.

https://soa.utexas.edu/libraries-centers/center-sustainable-development/portfolio-program.
EVENTS
1. CityLab Breakfast Kickoff
2. CityLab Final Symposium
3. CityLab Trash Walk
4. Explore UT: Interactive Rainwater Lab
5. UT Civic Engagement Fair
6. CityLab Advisory Committee Meetings
7. Sustainability Symposium 2014
8. Difficult Dialogues Public Forum
9. Design Futures 2015 (Kansas University)
10. Earth Day 2015
11. PID Launch Party
12. Portfolio Program in Sustainability Final Symposium

PUBLICATIONS
2. The Economic Impact of Historic Preservation in Texas, Update 2015, Executive Summary
3. Public Interest Design, Summer Program, 2014
5. NATO Urbanisation Project: Future Urban Environments, 2015
7. Harris, Shannon (May 25, 2015). Code Next needs Lady Bird’s vision to create tomorrow’s Austin. Austin American Statesman op-ed
The CSD offers faculty at the School of Architecture support in finding funding and preparing grants. Our staff has experience administering successful grants for a variety of different project types, as well as backgrounds in various research areas. We also provide assistance with graphic development of research concepts for the purposes of persuading funders, as well as the publication of research results. In 2014-2015, the CSD helped to write and submit thirty grants, and secured $748,553 in funding (with another $538,072 currently pending).

Though faculty may never be at a loss for ideas, it can be difficult to find and acquire the funding necessary to research these ideas and provide for release time, travel, expenses, and student assistants. Proposal writing can be a time-consuming effort, and the web of university regulations can feel like an onerous addition to the task of preparing a proposal. CSD staff work with faculty to identify funding, develop proposals, successfully navigate the application process, and administer their project funding. This assistance supports the productivity of our faculty and their ability to attract funded research.

In addition to offering one-on-one assistance year-round, the CSD offers several resources for faculty and students seeking funding:

- an annual Graduate Student Grant Workshop
- the CSD newsletter, published bimonthly, which includes calls for proposals and abstracts related to sustainability issues
- a faculty grants newsletter, published each semester, featuring the latest funding opportunities and requests for proposals in sustainability, planning, architecture, historic preservation, and architectural history.
The Hampton K. and Margaret Frye Snell Endowed Chair in Transportation (Snell Endowment) is an important resource to the University of Texas at Austin School of Architecture and the Center for Sustainable Development. Funded projects were successful in supporting a variety of multi-faculty and multi-departmental research programs related to sustainable transportation, and have generated significant follow-up research projects. In addition, the award of funds was made with the challenge that matching funds should be contributed in-kind, or a challenge grant should be sought as an outcome of using Snell Chair funds. Because of the Snell Endowment, significant outside funding has been leveraged and considerably more funding is being sought.

In 2014-2015, seven research projects were funded by the Snell Endowment for Transportation. These funds were used to provide either matching funds or as a seed grant for multidisciplinary projects which collaborate with other University of Texas at Austin research units or other academic units in the United States and abroad. One project took place in the summer of 2015 to support University of Texas students participating in a study abroad program in China. This is the eleventh year of collaboration between University of Texas at Austin and universities in China on education and research of issues related to sustainable development. Snell Endowment funds were also used to provide matching funds to host the *Journal of the American Planning Association* (JAPA) in the University of Texas at Austin School of Architecture.

In the coming 2015-2016 year, the Snell Endowment for Transportation will fund five research projects. Projects are required to be transportation focused, employ graduate research assistants, and must indicate a plan for continued research and funding beyond the year-long project period.
PARTNERS

Accion Cultural Espanola
American Architectural Foundation
American Institute of Architects
American Society of Landscape Architects
Association of Collegiate Schools of Architecture
Austin Community Design and Development Center
Austin Energy
Autodesk
BNIM
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City of Leander
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Design Corps
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Graham Foundation for Advanced Studies in the Fine Arts
Guadalupe Neighborhood Development Corporation
Hogg Foundation
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Your financial support of the CSD helps us to fulfill our mission of designing, constructing, and conserving a more sustainable built world through our many cutting-edge research initiatives, outreach projects, and interdisciplinary teaching endeavors. A gift to the CSD is an investment in developing sustainable solutions to the ecological, social, economic, and policy issues facing our built environment.


For more information on how to invest in the CSD, please contact Sarah Wu at sarahwu@utaexas.edu.