



2018 Governor's Environmental Stewardship Award Winner

Winner: Crosstown Concourse

Shelby County

Category: Building Green

The Crosstown Concourse is the metamorphosis of an abandoned Sears-Roebuck Distribution Center into a 1.5 million square foot “Vertical Urban Village” embracing the arts, education, and healthcare. This building, located at North Parkway and Watkins Street in the Crosstown neighborhood of Midtown Memphis, was originally constructed in 1927 and by 1965 was the region’s largest employer. Unfortunately, due to urban disinvestment and suburban expansion, the structure was abandoned in 1993.

In 2007, the structure was purchased by a local philanthropist, and in 2010, he was approached by a local start-up art organization who wanted to relocate their operation to the building. After a six-month feasibility study, a group of nine local institutions made their ideas a reality.

Both design and financing for the \$200 million project, occurred in tandem between 2011 and early 2015. Crosstown Concourse celebrated its grand opening in August 2017, almost 90 years to the day from the building’s first opening in 1927. When the building opened, there were 41 office and retail tenants, bringing 700 plus employees to the neighborhood. There are 265 apartments within the building, as well as a charter high school, YMCA, performing arts theater, and artist residency studios. This total project concept provides a vital civic heart for the community.

While LEED certification was not a project goal at the outset, the design team made significant decisions that led to Crosstown Concourse’s LEED Platinum designation in late 2017. In addition to preservation of the Sears building, daylighting strategies were incorporated, and more than 65 million pounds of material, equivalent to 94 percent of all waste produced during the construction demolition process was recycled. Vintage windows, which are 60 percent of the building façade were restored as were seven million bricks. This designation qualifies Crosstown Concourse as the largest historic adaptive reuse project in the world. Crosstown Concourse is also seeking WELL certification through the WELL Building Institute.

The Crosstown Concourse project shows that even the most unlikely development challenges can be successful given the right circumstances. After sitting abandoned for over two decades, the existing building posed a quandary: too large to redevelop and too expensive to demolish. The Crosstown Concourse teaches us what can happen when the typical model for development is put aside in favor of local reinvestment and direct community collaboration. Crosstown Concourse demonstrates what is possible when multiple civic organizations committed to restoring a community are paired with patient capital and civic leaders determined to see their city improved.



2018 Governor's Environmental Stewardship Award Winner

Winner: Hytch
Davidson County
Category: Clean Air

Hytch LLC, a Nashville-based technology company, launched their *Hytch Rewards* smartphone application, which validates, tracks, and rewards ridesharing behavior through GPS tracking. The app is appropriate no matter the method of transportation including car, bus, or train. In the first two months of the launch, 3,300 individuals downloaded the app and banked over 630,000 vehicle miles not driven. This rate of adoption demonstrates that cash rewards can serve as a rallying point and a very effective source of motivation for commuters who decide to share more rides. Within these two months, the use of the app resulted in 178 fewer tons of carbon emissions or the equivalent of 12,000 trees saved. This first-of-a-kind technology was funded by community grants and brand partnerships with companies and organizations like Nissan, Sprint Absolute Wireless, Reliant Bank, and Goodwill Industries of Middle Tennessee. *Hytch Rewards* allows individuals to earn mile-by-mile cash rewards whenever you share a ride, including carpooling, public transportation, and ride-hailing services. When a ride is complete, users receive a trip summary showing environmental impact, trees saved, and cash rewards earned. Payment is delivered to the user in \$10 increments via PayPal.

\$11,000 has been paid back to users in just the first two months of the rewards program. If current trends continue, that will mean over \$66,000 in the calendar year 2018. Public awareness campaigns, such as the "Hytch with Leaders" video features a wide range of bipartisan community leaders, from senators to mayors, Tennessee Department of Transportation leaders to private company presidents- all of whom address their own personal participation in making environmentally-conscious decisions, including ridesharing. Interns from Vanderbilt, MTSU, Belmont University, and Lipscomb University have joined in to educate citizens and provide outreach awareness.

Hytch received the 2016 Nashville Area Metropolitan Planning Organizations "*Innovation Award*"; a 2016-2017 Federal Congestion Mitigation and Air Quality Grant; and most recently, in 2018 were awarded Nashville Technology Council's "*Emerging Technology Company of the Year*." These accomplishments are serving as the business model for a nationwide expansion this year.

Success in Middle Tennessee has already attracted sponsors who wish to fund additional rewards in cities like Memphis, Chattanooga, and Knoxville. With *Hytch Rewards*, communities everywhere have a simple tool to help promote and accelerate their transition to a smarter, greener transportation system.



2018 Governor's Environmental Stewardship Award Winner

Winner: Knoxville Partnerships for Low-Income Weatherization

Knox County

Category: Environmental Education and Outreach

In the past two years, numerous Knoxville partners, including TVA, Knoxville-Knox County Community Action Committee (CAC), City of Knoxville, Knoxville Utilities Board, Alliance to Save Energy, and several non-profits, implemented the Round it Up and Knoxville Extreme Energy Makeover (KEEM) programs for energy efficiency retrofits of nearly 1,500 homes in the low income community.

Round it Up was launched in 2015, as a three-year pilot program through which KUB customers would voluntarily allow their utility bills to be rounded to the next dollar. 100 percent of the funds contributed, are earmarked for the CAC's weatherization assistance program for low-income residents.

At the same time, the partners developed and were awarded more than \$15 million from TVA for KEEM, a two-year program to weatherize 1,278 lower-income homes and provide energy efficiency education to better equip the program participants to manage their utility costs.

Through general education and outreach, KEEM leveraged the *Savings in the House* educational campaign, developed before the start of KEEM to encourage low-cost and no-cost energy efficiency behavior changes. Also, KEEM partners shared their strategies for successful energy efficiency education and outreach through presentations at national and regional industry conferences.

Extra effort was made to reach specific demographics and community groups that were not well reached through traditional efforts. All KEEM and *Savings in the House* print materials were available in English and Spanish, and workshops were also available with Spanish translation. To reach lower-income neighborhoods a door-to-door campaign was organized through Socially Equal Energy Efficient Development (SEED). The goal was to teach community members in person about the benefits of energy efficiency and the KEEM program targeted underserved neighborhoods. SEED's program helps at-risk young adults gain job readiness skills. Through partnerships to support outreach efforts for the weatherization programs, SEED trainees learned about aspects of home weatherization and assisted in workshop delivery and door-to-door outreach.

The impact on the community is evident. Annual energy savings of more than 6 million kWh or an average savings of 32% per home were realized. With the average age of the home at 68 years, improved quality of life and comfort for the participants was noticeable. Over 1,700 residents were educated through 145 workshops thus empowering families to take control of their energy bills. And lastly, these projects brought 12.2 million dollars of direct economic impact to the local community.

This Knoxville partnership serves as a model for communities on responsible resource use, promotion of regenerative economies, and social equity through Tennessee.



2018 Governor's Environmental Stewardship Award Winner

Winner: Whites Creek High School

Davidson County

Category: Environmental Education and Outreach (Schools)

In 2017, the Whites Creek Community Club provided 4 acres of community garden space to Whites Creek High School for the production of soybeans. With \$10,000 in grant money from the Ford Next Generation Learning and a Ford pickup truck, the students were on their way to traveling across the United States and Canada. Now, this may not seem particularly innovative *except* all the while; the students were moving across the country and using a renewable and alternative fuel they made themselves: biodiesel. In their biodiesel-fueled Ford F-250, students traveled to 14 different high schools, and various colleges and universities such as the University of Ohio, the University of Guelph, the University of Kentucky, and the University of Florida. These students shared knowledge that demonstrated that high schoolers can be active contributors in the area of greener energy and that the alternatives to common fossil fuels can be implemented.

In place of regular fuel for their travels, Whites Creek High School students grew the soybeans and then harvested and pressed (Ag Oil Press) the soybeans for oil. They made 60 gallons of soybean oil per acre. The soybean oil was then heated to 120 degrees Fahrenheit and mixed with chemicals, such as methanol, in their biodiesel processor. This process causes transesterification, which is the separation of glycerin from the vegetable oil. What remained was biodiesel. This project allowed the National FFA Organization student members to be involved in Supervised Agricultural Experience Programs for renewable energy and the promotion of environmental advocacy to the National FFA organization at the regional, state, and national level.

The Whites Creek High School biodiesel project provided an opportunity for both community members and the citizens of Tennessee to see an example of biodiesel production and use in action. Anyone can use this as the inspiration to produce their biodiesel as part of a hobby project, school program, or business enterprise. Whites Creek has and continues to teach others about making biodiesel. The Whites Creek Community Club has hosted student speakers to discuss biodiesel production, and Whites Creek Students spoke at the Nashville Food Summit in 2017. Additionally, visiting National FFA members have come to learn about the program. During the summer of 2017, Whites Creek High School students spoke to the executives of Ford Motor Company through an opportunity made possible by Ford Next Generation Learning. Visiting teachers have come from a number of States, including Hawaii, to see the program firsthand.

By promoting the use of cleaner energy and providing alternate solutions for cleaner Tennessee air, current environmental issues are being addressed. From growing soybeans to the Ford Motor Company, Whites Creek High School is leading the way in sustainability.



2018 Governor's Environmental Stewardship Award Winner

Winner: Montgomery County Energy Upgrades
Montgomery County
Category: Energy and Renewable Resources

In October of 2016, the Montgomery County Government partnering with Siemens Industry, Inc. completed a year-long, large-scale lighting retrofit and upgrade of the HVAC system in the Montgomery County Historic Courthouse, Courts Center, Jail, Health Department, and the Veterans Plaza property. Over 23,000 lights and fixtures were retrofitted with LED bulbs, and three chillers and four boilers were replaced with more efficient units from a local business and Tennessee Green Star Partner, Trane. Two 500-gallon hot water storage tanks were replaced, four cooling towers were refurbished, and the HVAC automation and variable frequency drive (VFD) systems were upgraded to increase efficiency at multiple locations. An ozone laundry treatment system for the jail was installed, as well as upgrades to over 600 toilets at various facilities with low flow components.

The Tennessee Department of Environment and Conservation's Office of Energy Programs and the Clarksville-Montgomery County Green Certification Program provided necessary technical assistance for this project by helping the County determine which improvements would be most beneficial. The connection with Siemens was a result of this collaboration, as well as the decision to approach the project as a whole and not in phases.

This five million dollar retrofit and upgrade is a self-funded energy efficiency project, estimated to save Montgomery County Government \$358,827 in the first year. Data collected from October 2017 through February 2018 show a total savings of approximately 674,200 kWh. Natural gas savings during this same period is approximately 35,100 Ccf and water savings total approximately 5,046,700 gallons. As a result of the lighting retrofit and HVAC upgrades, the County can take on additional projects using the money that would have been spent on utilities or short-term equipment fixes. Additionally, any future savings will continue to allow them to take on more projects and increase their sustainability footprint.

Montgomery County won a special award for "Outstanding Efforts in Energy Efficiency" at the October 2017 Clarksville-Montgomery County Green Certification Awards banquet and the City of Clarksville is a Valley Sustainable Gold Community.

Montgomery County Mayor Jim Durrett explained, "This project is very unique, as it will be funded, through the savings it generates over time. We will not only be upgrading and replacing much needed items like chillers, boilers, and lighting but at the same time installing equipment that is much more efficient, saving us money on utilities for years to come."



2018 Governor's Environmental Stewardship Award Winner

Winner: Bells Bend Conservation Corridor

Davidson County

Category: Land Use

The mission of the Bells Bend Conservation Corridor is to promote and protect the rural character of Bells Bend. Members are working to establish an outdoor recreational, cultural, and residential conservation district that serves as a county, state, and regional planning model for open space preservation. The Beaman Park to Bells Bend conservation area is a north-south corridor between Beaman Park and the oxbow in the Cumberland River that forms Bells Bend, encompassing roughly 34 square miles or 22,000 acres. Old Hickory Boulevard is the main north-south transportation corridor through the area and ties together its northern and southern ends. This area is book-ended by two of Metro Nashville's newest and largest parks, Beaman Park in the north and Bells Bend Park in the south. The western boundary is located toward the Davidson-Cheatham County line, and the eastern boundary is found toward Briley Parkway on Highway 12. Currently, 350 acres are in conservation easements held by the Land Trust for Tennessee

Two major programs that benefit from the Bells Bend Conservation Corridor include the Share to Share Program and the Scholarships for Camp Bells Bend Beaman. The goal of the Share to Share program is to provide access to fresh, locally grown produce for food insecure families in Nashville. The Bells Bend farm is one of four local farms that can donate to families in need each summer. Beaman Park to Bells Bend Conservation Corridor has formed a partnership with the Camp Bells Bend Beaman and launched the Beaman Park to Bells Bend Conservation Corridor Scholarship Program which provides flexible pricing in service to camp families and the community. Camp Bells Bend Beaman is a day camp program that connects children to nature. The camp program is designed to provide outdoor play, exploration, and education through activities and experiences at two of Nashville's beautiful nature parks, Bells Bend Outdoor Center and Beaman Park Nature Center.

By conserving both the natural and cultural resources of the area, the Beaman Park to Bells Bend corridor offers the citizens of the Nashville and Davidson County the rare opportunity to experience Tennessee as it was. As stated by the Bells Bend Conservation Corridor's Tyler Skelton "Beaman Park to Bells Bend offers the true Tennessee."



2018 Governor's Environmental Stewardship Award Winner

Winner: Window Cliffs State Natural Area
Putnam County

Category: Natural Heritage

On Friday, April 7, 2017, the State of Tennessee celebrated the momentous opening of the Window Cliffs State Natural Area, a rugged 275-acre area in southern Putnam County. Window Cliffs is home to breathtaking limestone bridges and “windows,” rare plant species and wildlife habitat, and over two miles of scenic Cane Creek.

For over 40 years, Window Cliffs had long been considered an important area for land conservation and preservation. In 2014, after years of both interest and discussions between private landowners and the State of Tennessee, multiple landowners desired to sell the land to the State. Due to the very complex nature of the property transactions with multiple landowners, and a desired quick acquisition time, the State of Tennessee turned to the Land Trust for their expertise. It was the desire that the Land Trust for Tennessee step in, acquire the property, and make this dream a reality.

From 2014 to 2017, the Land Trust led a complex and multi-faceted land acquisition effort that bridged the needs of both private landowners and the State of Tennessee. The result is the permanent protection of Window Cliffs - a hugely significant land conservation win that was decades in the making.

Located within the dissected portion of the Eastern Highland Rim, Window Cliffs is a prominent geological cliff-top feature that consists of a very narrow, elongated ridge that lies in the neck of an incised meander of Cane Creek. At about 150 feet wide at its base, it is only a few feet wide on the narrow cliff-top, some 200 feet above Cane Creek. A fragile landform underlain by Mississippian and Ordovician-aged sedimentary limestone, Window Cliffs continues to undergo erosion and dissolution. This geologic process has created the prominent natural bridges or “windows” for which it is named.

The cliff face supports a Central Interior Calcareous Cliff and Talus plant community, and it is only one of two known Tennessee locations of the state-endangered plains muhly (*Muhlenbergia cuspidata*). The state-listed northern white cedar (*Thuja occidentalis*) occurs at the base of the cliff. The best quality forest communities in the natural area consist of dry-mesic oak and hickory in the upland, while the mesic coves support both American beech and eastern hemlock.

2.4 stream-miles of Cane Creek flow through the natural area along with Phelps Branch, a tributary to Cane Creek. A few small cascades, steep slopes, narrow ledges, and a 20-foot waterfall occur along Cane Creek. Many of these features can be observed along the 5.5-mile loop that leads from the parking area to the Window Cliffs. The trail traverses 18 creek crossings, old fields, and successional forest through a section of the natural area acquired to provide public access to the “Windows.”

This 85th State Natural Area adjoins Burgess Falls State Park, one of the most popular parks in the State because of its outstanding waterfalls and overlooks. The important addition of Window Cliffs State Natural Area gives visitors the opportunity to have an extended stay and experience beyond that of just Burgess Falls State Park.



2018 Governor's Environmental Stewardship Award Winner

Winner: Country Music Hall of Fame®
Davidson County
Category: Materials Management

In 2016, the Country Music Hall of Fame and Museum launched a comprehensive sustainability program that promoted civic sustainability in Nashville and Middle Tennessee. The Country Music Hall of Fame focused on a variety of initiatives: reducing food waste through edible food donations and composting; increasing recycling with the introduction of trash and recycling receptacles in offices back and front of house; building an organic, hydroponic, rooftop garden to grow produce for use in Museum restaurants; and educating 300 staff to maximize impact of the Museum's sustainability activities. As a result of these activities, the Country Music Hall of Fame and Museum diverted 216,124 pounds of waste from landfills in 2017. This reflects 40 percent of the Museum's total waste and an overall increase in waste diversion of 25 percent between the years of 2016 and 2017. With the use of the new front of the house recycling, compost, glass, and trash separation stations—funded by a grant awarded from the Tennessee Department of Environment and Conservation—the Museum expects increased results in 2018.

Through a partnership with the Nashville Rescue Mission, 13, 800 pounds of food were donated which in turn fed more than 25,000 people. Inedible food was composted through a contract with a local company. 123,356 pounds of materials were recycled; a partnership for glass recycling was secured which resulted in 16,600 pounds of recycled glass. The 12 by 12 foot hydroponic, rooftop garden produced more than 1,200 fresh vegetables, along with multiple pounds of fresh herbs. The harvest was used in the Museum restaurants and at third-party events.

Since the launch of the Museum's sustainability program, sustainable practices are celebrated and encouraged as corporate values and regular aspects of the institution's culture. In 2017, a quarterly meeting of the Board of Officers and Trustees was dedicated to this initiative, raising awareness and generating support for the Museum's efforts among leadership. Signage is now posted in three languages, ensuring more effective communication among all members of the Museum staff. Receptacles and other materials are color-coded, and sustainability is a topic commonly addressed in all-staff meetings.

To the over 1.2 million guests a year that visit, the Country Music Hall of Fame proudly serves the Nashville community as an advocate of sustainable practices.



2018 Governor's Environmental Stewardship Award Winner

Winner: General Motors of Spring Hill

Maury County

Category: Sustainable Performance

General Motors Spring Hill Manufacturing strives for excellence in sustainable environmental performance. This commitment to environmental excellence is demonstrated continuously within the facility and throughout their community. Numerous partnerships with onsite suppliers, local leadership, the State of Tennessee, volunteers, and the many employees of GM have given various sustainability projects the desired positive impact important to the mission of General Motors. Partnerships with key stakeholders are fundamental to successful environmental sustainability projects. In 2016 and 2017, projects included a partnership to provide a wetland observation deck at Henry Horton State Park and a tree planting in the wetland area. General Motors employees partnered to provide two rain gardens at Port Royal Park in Spring Hill, plant a Pollinator Garden at the Visitor/Welcome Center, plant trees for Arbor Day, volunteer for a highway cleanup for Keep America Beautiful day, assist with watershed education activities with the Maury County Boys & Girls Club, and collaborate with the Tennessee Department of Environment and Conservation to host a Sustainable Industry Workshop to Tennessee industry and manufacturing.

In 2017, a nature trail was constructed that allows employees and school groups to explore and experience a wildlife habitat area on the Spring Hill facility site. Features of this 1.16-mile trail include a creek, the outlet of an underground spring, and an observation deck overlooking a wetland, a pond, and several 100 plus years old trees.

Ongoing environmental programs at the General Motors site include maintaining their Certified Wildlife Habitat, updating the site's biological species inventory, and expanding both the plant's single stream recycling program and the plant's manufacturing recycling program. The Spring Hill plant also has an active energy conservation program that has been ongoing for several years. In 2017 and 2018, their focus concentrated on energy conservation during nonproduction periods and utilizing "power signature" and infrared heat measurements.

General Motors consistently demonstrates environmental leadership by participating in and supporting national, state, and local sustainability efforts. General Motors (formerly Saturn) was a member of the 1993 *Tennessee 2000 Initiative*, a collaborative effort among Tennessee industry to reduce TRI emissions. In 1998, *Tennessee 2000 Initiative* became the Pollution Prevention Roundtable with GM as a charter member. In 2001, General Motors was accepted into the new Tennessee Green Star Partnership and continues to be one of the Partnership's outstanding members.

General Motors was a founding member of the Suppliers Partnership for the Environment, an innovative partnership between automakers, their suppliers, and the USEPA. GM Spring Hill recently hosted one of the Partnership's quarterly meetings. The Suppliers Partnership works together to develop projects and activities focused on environmental sustainability issues impacting the auto supply chain.