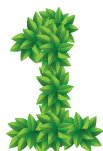


GHV MISSION

To educate, excite, and equip an inclusive population of elementary students to pursue a sustainable world through a hands-on program in bio-science, urban agriculture, and nutrition and dietetics with the following goals:



Introduce children to a rich, hands-on learning experience that improves bioscience education



Increase student understanding of proper nutrition, and encourage families to adopt healthier everyday habits



Lead more students to careers in bioscience to meet the pressing need to fill emerging jobs in science and agriculture

URBAN EDUCATION ALLIANCE

More than 1,500 students in the participating schools represent a diverse socio-economic and geographic spectrum. Reaching yet further, the Venture plans to employ state-of-the-art communication channels to share its programs with other elementary schools across the St. Louis region and beyond.

THE GREEN HOUSE VENTURE is a unique STEM program taught in a working urban agriculture environment, involving students from four elementary schools within south-central St. Louis that comprise the Urban Education Alliance: :

ST. MARGARET OF SCOTLAND {Parochial}

MULLANPHY INVESTIGATIVE CENTER {Public Magnet}

TOWER GROVE CHRISTIAN ACADEMY {Christian}

LAFAYETTE PREPARATORY ACADEMY
{Public Charter School}



GHV CAMPUS GROWTH PLAN

In the past year, the THE GREEN HOUSE VENTURE has enjoyed a remarkable resurgence from the COVID pandemic that stalled some of our programs. Highlights of our progress that are covered in this annual report include:

- Completion of bee study conducted by the Saint Louis University Bee Lab
- Food harvested from our Terrance Garden for Operation Food Search



- Extensive new program to promote media coverage
- Major donation of \$1 million for the construction of the Education Center
- Expanded technology with Growth Chambers and Cold Frames
- Return of the Adventure Summer Camp
- Completion of Phase 1 and the Sign Strategy for the GHV Campus
- Working in partnership with MoDOT for the marketing of the Green House Venture



CURRICULUM AND

CLASSROOM OUTREACH

The fiscal year just ended saw the greatest advances in the Venture's work with children since its founding in 2015. Our partnership with three schools in the Urban Education Alliance—Tower Grove Christian, St. Margaret of Scotland, and Mullanphy Investigative Learning Center—saw record student involvement. This summer, we also added a fourth partner, the Lafayette Academy, and we restarted our three-week Summer Adventure Camp, co-sponsored by Tower Grove and by Saint Louis University's Nutrition and Dietetics Department. Key institutional partnerships were established with the Danforth Plant Science Center, Missouri Botanical Garden, St. Louis Community College, St. Louis Zoo, and the USDA. Each partner will provide one activity per term for an Alliance school.

Last July and August, **Jack Connaghan** and **Dave Reid** enhanced our fleet of six Computerized Growing Chambers (CGCs) with automatic watering systems; control over the brightness, color, and daily cycle of light; timed injections of individual nutrients, and two-angle photography for remote monitoring and time-lapse photography. Fifth- and sixth-graders beta-tested the equipment in experiments on the effects of varying compositions of soil and intensities of wind. CGCs will be in use at all four Alliance Schools in AY2024-25, where experiments will be conducted in hallways to allow students, staff and visitors to observe what classes are learning.

Last winter, we also conducted outdoor experiments to extend the growing season on our campus along the Embankment Greenway along I-44. Students helped to build Enhanced Cold Frames (ECFs) designed with such features as cement-board backs to capture heat by day to release by night and 'compost heaters' to generate heat. Cold-hardy plants even survived a sub-zero cold snap.

Besides these class experiments, more than 220 students planted in our Terrace Garden, many seeing seeds germinate for the first time. Becky Finnegan and her team of Master Gardeners taught children to read seed packets, mark off 'one-foot gardens' with string, observe stages of development through weekly photos, and identify and taste twelve species during a Harvest-Day Treasure Hunt. They gamely tried many unfamiliar species, including kale, chard, and kohlrabi.



We worked hard on curricular pathways from grade to grade and on teamwork between younger and older children. Fourth graders germinated seedlings in CGCs that fifth-graders then planted in the terraces. As students advance, their field trips to our Pollinator Recovery Habitat will change and require new skills, with fourth-graders learning about seed dispersal, fifth-graders learning about ecology of native Missouri ground bees and flowering plants, and sixth-graders learning about drying, packaging, and selling of herbs for a fund-raiser. Sixth-graders also carried out a genetics experiment in the Danforth Plant Science Center's Authentic Science Program, which produced data for scientists seeking hardier, more productive plant-lines for underserved peoples around the world.

Finally, we piloted this year a way for students—many of them on food assistance themselves—to donate the hundreds of pounds of plants that they grow to the needy through Operation Food Search. It's a valuable lesson in giving back as a vital part of the cycle of life.



WE'RE BAAAACK!

After a 4-year hiatus due to COVID19, **THE GREEN HOUSE VENTURE** resumed its wonderful Adventure Summer Camp program for students in the Urban Education Alliance. The camp spanned two weeks of exciting and diverse activities, such as working on a STEM project, swimming, and nature experiments.



Part of the time was spent at Tower Grove Christian Academy, following by participation in the “*Gardens to Tables*” Culinary Camp sponsored by the Saint Louis University Department of Nutrition and Dietetics. There, the GHV campers visited the HealthWorks! Kids Museum, learned to prepare their own lunches, used various tools and gardening techniques in Saint Louis University’s learning garden, and met counselors from India and other nations.

WHAT A SITE!

While fundraising continues to grow for the planned Greenhouse Venture Education Center, the first phase of the GHV Campus is complete and sprouting with nourishing vegetables, beautiful flowers and thriving plants.

The “fertilizer” that feeds the success of this remarkable educational adventure is our ever-growing group of dedicated volunteers. From Amen St Louis to Master Gardeners, to school children, and others, the entire expanse of the Embankment Greenway with our magnificent Terrace Garden is flourishing.



The partnership with our friends at MODOT has helped us transform a highway embankment overgrown with weeds and invasive species into an oasis of vegetation where pollinating bees and butterflies now thrive.

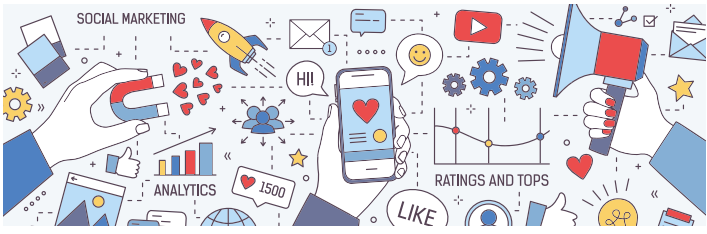


Highlighting the location of the Greenhouse Venture in South-Central St. Louis is the bright green painting of the curbs, fire hydrants and utility boxes. The recent

addition of our new GHV banners at key entry points is the latest branding image, which concludes our overall Sign Strategy to make our site more visible and bring even more enthusiastic attention to the GHV Campus.



MARKETING HIGHLIGHTS



It's been a banner year for raising people's awareness of the great work we are doing with THE GREEN HOUSE VENTURE. Here are some highlights of activities that are putting our remarkable program in the public eye.

- We created the new **Media Committee** that is generating excellent new coverage. That's being passed on to everyone associated with the Venture, including patrons, volunteers, contributors, businesses, prospective donors and more. *(See additional information in accompanying story)*

- Working with **Harris Stowe State University**, we brought on a talented intern, **Arianie Esperon**, who worked with us from January through May of this year. Among other things, she produced a number of short video reels that we can use for promotional purposes, and she wrote stories for two of our 2024 newsletters.



- For the first time, we participated in the popular annual **Shaw Art Fair**. With help from **Forest ReLeaf** and volunteers from **Wild Ones** and **Master Gardeners**, we attracted dozens of people to our booth who were enthusiastic about the work we are doing. A number of people signed up to receive more information and offered to serve as volunteers.



- At the **Master Gardeners Annual Meeting**, held at the **Missouri Botanical Gardens**, we were invited to set up a display table that was staffed by GHV President, **Tom Purcell**, and the head of our Marketing Committee, **Nicole Mohler**. We attracted numerous interested attendees who were eager to join our wonderful volunteer corps.

- As in years past, our quarterly newsletter continues to showcase special happenings taking place throughout the year.

- The **Wild Ones**, along with the **Master Gardeners**, hosted an annual event, which was held on the Terrace Garden of our GHV Campus. Among other things, they were able to proudly show the special section on the garden that they plant and care for throughout the year.

- We also continue to expand our library of videos and photos that are posted routinely on our website. Here's a link to a video we produced on the public announcement of a **\$1 million gift for the construction of our state-of-the-art Education Center**.

- Our list of followers/subscribers continues to grow on our social media platforms, with the follow numbers as of August 2024:

- Facebook (447)
- LinkedIn (280)
- Instagram (347)
- YouTube Channel (5)



- Our website remains as the foremost source of information for the public to learn about our work. We continue to work with our web master, **Studio 2108**, to add more features and information that impress visitors to the site. Key additions in past year include:

Links at the bottom of the Home page to coverage we received from prominent local media: Home - [Green House Venture](#)



Revamped "In the News" section with a link to all the past year's quarterly newsletters: GHV Campus Newsletter - [Green House Venture](#)

- Our promotional connection with **Give STL Day** is now in its 5th year. This year's program raised \$5,399, the largest donation since we first participated, bringing our 5-year total to \$18,652 *(See more detailed information in Finance story)*

- We produced branded pens and bookmarks that are used as attractive give-away items

- We are tremendously grateful for the continued support we get from the remarkable **Andy Dyer**, who generously donates his time to the design of our annual reports. This past year, he also lent his talents to designing our new banners, signs and bookmarks.



GROWING FORWARD

The campaign for the **GHV Campus** has continued to gain interest, attention, and momentum from the community of the past year.

We are excited to have surpassed the \$1.5 million milestone, having secured nearly \$1.8 million in gifts and pledges for the planned Education Center. Leadership-level gifts from **The Viragh Family Foundation**, **The Bellwether Foundation**, and others have provided new momentum and energy into the campaign. This success is due in large part to the diligent efforts of the Board, along with GHV's President, **Tom Purcell**. Presentations, proposals, and meetings at the Terrace Garden have helped to generate excitement for the project.

The interstate 44 Embankment Greenway – described by one journalist as a “classroom on the highway” – is a model for creative land use. It is the central feature to the first of two phases of development for the GHV Campus. Now that the campus is defined with extensive signage, restored prairies, and flourishing gardens, the Venture is focusing its efforts on the second phase of the project with the construction of the new Education Center.

As the campaign builds pace over the next year, we look forward to engaging more private foundations, companies, and individuals in our vision for the future of elementary education in bio-science and urban agriculture.

GHV leaders are happy to provide tours of the site, offer a demonstration of one of our growth chambers, or present to groups and organizations, including interested garden clubs. If you would like to arrange a meeting, or if you have an interest in participating in this campaign, please let us know.

Your passion and ideas to help us advance innovative solutions for elementary science education are most welcome. If you would like additional information, please contact Venture president, **Tom Purcell** at purcell1@sbcglobal.net or 314-604-8050 or our fundraising consultant, **Dan Reynolds** at dreynoldsholmesredford.com or 314-308-8038 to learn more.



GENERATING PUBLIC AWARENESS

A new Media Committee was formed this past year to support fundraising efforts and raise public visibility of **THE GREEN HOUSE VENTURE** by seeking targeted news media coverage. Working with **Craig Workman** of Workman Communications Group, the Media Committee has been very successful in generating positive news media coverage of our organization and activities since its launch.

The first initiative of this committee was a press conference held on October 19, 2023 at Mullanphy – Botanical Garden Investigative Learning Center. to announce a \$1 million donation received from generous donor Bud Purcell. With students, teachers, board members and volunteers looking on, a series of speakers shared their stories about why GHV is important to the future of our community. News coverage from the event included a live in-studio interview on KMOX with **Tom Purcell** and the publication of our news release in the St. Louis Post-Dispatch. A promotional video of the event was also produced and shared with key stakeholders including donors, prospective donors and Partner organizations.

A steady stream of additional news coverage has been achieved since then, including the announcement of new board member **Kurt Keister** published in the St. Louis Business Journal. Other coverage includes a feature story in The Gateway Gardener, a news story about the bee pollinator study on KWMU (NPR), a by-lined commentary article by Tom Purcell in the St. Louis Business Journal, an in-depth interview with Tom Purcell in St. Louis Magazine, a feature story on KMOX about the Operation Food Search harvest of produce, and a feature story on the planting and growing activities of our students that aired on KMOV-TV.

Below are links to some of this news coverage:



[How Green House Venture is looking to grow the next generation of plant scientists \(stlmag.com\)](https://www.stlmag.com/news/2023/10/19/how-green-house-venture-is-looking-to-grow-the-next-generation-of-plant-scientists)

[Interstates could be highway to health for bee populations | STLPR](https://www.stlpr.com/news/interstates-could-be-highway-to-health-for-bee-populations)



<https://www.firstalert4.com/2024/06/19/how-one-project-is-aiming-redefine-urban-agriculture/?tbref=hp>



STREET LIGHT BANNERS AROUND THE GHV CAMPUS




FINANCIAL UPDATE

THE GREEN HOUSE VENTURE continues to attract significant interest in funding its growth. We have received a total in donations and pledges of \$1,764,373 through our Growing Forward Campaign, specifically for the construction of our Education Center. Notable contributions this past year included a \$1 million pledge over 3 years and two donations from charitable foundations totaling \$130,000.

In addition, donations for ongoing operations from our inception through June 30 of this year have reached \$929,601. Operational expenditures this year focused on revamping the computerized growth chambers, return of Adventure Summer Camp, curriculum development and the maintenance of our magnificent Terrace Garden, which has attracted widespread attention and provided extraordinary learning opportunities for our students.

That brings total donations raised since our beginning to \$2,712,626 – an impressive investment in an innovative Venture for which we are deeply grateful.

With the help of our fundraising consultants, we are continuing to make inroads with organizations and individuals who can contribute the capital needed to begin construction on the planned Education Center, which will be the crown jewel of the GHV Campus.



Goal was set for \$4000

2023 Give Day Total \$5,399

5 YEAR TOTAL \$18,652

For the past five years, the Green House Venture has participated in the region-wide fundraising program called “Give STL Day.” This year, we received \$5,399, bringing our 5-year total to \$18,652. Included in that amount this year was an award of \$500 from the St Louis Community Foundation for the STEM Mission Category Prize. That’s an exciting accomplishment that not only provides important financial support, but also raises awareness of the Venture’s work throughout the community.



VOLUNTEERS

Over the last year, the need for volunteers to plant and maintain the Embankment Greenway has grown substantially. Between help from the **Master Gardeners** and **Amen St. Louis** (an organization that involves students from various high schools in the region in volunteer efforts,) the Terrace Garden and Embankment Greenway now receive constant expert care, ensuring that the GHV Campus remains beautiful and continues to attract new visitors, supporters, and collaborators.

PROPAGATING POLLINATORS



The Venture’s innovative collaboration with the Bee Lab at Saint Louis University concluded this past year with revealing research that showed the potential for supporting pollinating bees and butterflies on our Embankment Greenway along Interstate Highway 44.

From the outset of our collaboration, our work has been driven by a directive from the Federal Highway Commission and supported by the Missouri Department of Transportation (MoDOT) to use the margins of interstate highways to repopulate endangered pollinators.

Research done this past year showed conclusively that roadside greenways can, indeed, provide a nurturing environment where pollinators can thrive – but only when the area is free of invasive species and replaced with the right types of plants, flowers, and native grasses. It proved that even in a large city, there are ways to create viable habitat for pollinators without disturbing or changing buildings.

Without these pollinators, numerous agricultural crops could not be grown. There are thousands of miles of highway across the country that could be used to create supportive habitats, helping to ensure food security for our nation. What’s more, it would produce an economic benefit from reducing the need to mow those areas along the highway.

It’s a win-win plan, and **THE GREEN HOUSE VENTURE** is proud to be at the forefront of this promising innovation in urban agriculture.



BOARD OF DIRECTORS

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 Donald Stump, Ph.D.,
Vice-President
 Jack Connaghan, *Secretary*
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 Ben Johnson
 Sanjiv K Bhatia Ph.D.

GHV BOARD

THE GREEN HOUSE VENTURE over the last 8 years, has been fortunate to have an exceptionally professional board. This year, we've had a number of important changes in our board membership:

- **Kurt Keister** of Garden Oasis, now Co-Chair of the Site Committee, was added to strengthen the organization's capability to plant and maintain the Embankment Greenway.
- **Dawn Nemanick**, who serves as Director of Administration and Events for the Angel Band Project, has been appointed co-chair of the Marketing and Communications Committee. This appointment follows the retirement of **Nicole Mohler** who served a terrific five-year career in that role. Nicole will continue to be a member of the GHV Board of Directors.
- **Jack Connaghan** now serves as the other Co-Chair of the Marketing and Communications Committee, in addition to his previous role as GHV Board Secretary.

We are tremendously grateful to have all of these wonderfully talented and dedicated people on our leadership team.

THE GREEN HOUSE VENTURE **GHV** CAMPUS DONORS

- John and Joan Vatterott Family Foundation
- MySun Foundation
- Wayne C. Kaufmann Charitable Foundation
- YouthBridge Community Foundation
- Thad Simons/NOVUS
- Ameren
- Wells Fargo
- Bernard Purcell
- Thomas and Virginia Purcell
- Great River Confluence
- Terry Donohue
- Green House Venture Directors
- Kerr Foundation
- Jordan Charitable Foundation
- Saigh Foundation
- Cardinal Care
- Purcell Family Trust
- First Bank
- Gary Pohrer
- SNIA – Helping Hands
- St. Louis Philharmonic
- American Heart Association
- Michael Shean
- Lee Kling
- John Rick
- KWS
- John Nickel
- Chris Adelman-Adler
- Jack Lane
- William Duffe
- GiveSTL Campaign
- Bob St. Vrain
- Matt Villa
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- St. Louis Rotary Club
- Becky Finnegan
- Vic Jost
- Cheryl Purcell
- Debra Pyzyk
- Rick Kacenski
- Robert Kochan
- Gerri Lashley
- Thomas McDonough

KEY PARTNERSHIPS

*The following organizations contribute an array of services to expand awareness of **THE GREEN HOUSE VENTURE**, to promote our mission, and to ensure that the GHV Campus is maintained throughout the year.*

- Tower Grove Park
- Operation Food Search
- Forest ReLeaf of Missouri
- Saint Louis Zoo/Coahoma Orchard
- Saint Louis University and Department of Biology
- Washington University
- University of Missouri–St. Louis
- Harris–Stowe State University
- St. Louis Community College
- Saint Louis University High School
- Switch
- AMEN St. Louis
- Focal Pointe
- St. Louis Chapter of Master Gardeners
- St. Louis Chapter of the Wild Ones
- City of St. Louis Water Department
- Missouri Department of Transportation (MODOT)
- Missouri Department of Conservation
- Danforth Plant Science Center
- DTLs Landscape Architecture
- Shaw Neighborhood Improvement Association (SNIA)
- Shaw Nature Preserve
- Tower Grover Neighborhood CDC
- Brake Landscaping Service
- Hercules Construction Management Company
- Native Landscape Solutions
- Urban Improvement Construction (UIC)
- Wild Carrot
- The Dogwood
- Studio 2108
- Arbor Group
- Andrew Dyer
- Holmes, Radford & Reynolds
- Landes & Associates