



HGA

2021/22 IMPACT REPORT:
SUSTAINABILITY



October 26, 2022

As CEO of HGA, I am fortunate to have the opportunity to connect and collaborate with leaders at some of the most forward-thinking colleges and universities as well as design firms on the AIA's Large Firm Round Table. Over the last year, the urgency of architecture and engineering practice taking a stronger role in climate action has become clear.

When I began working with HGA as a Designer in the 1990s, I saw how impactful interdisciplinary teams could be, leading to high performance and beautiful design outcomes. To inform the expansion of the American Swedish Institute, I met with design leaders in Sweden to learn how sustainability is ingrained into Swedish culture, systems, and policies. This led to an integrated sustainable design approach on the project and inspired the aspiration for how we could practice at HGA on all projects, elevating environmental, human, and financial outcomes in tandem.

Since I stepped into this role in 2015, we have put into place the people, tools, and processes to help our clients and projects make a measurable difference. In this inaugural Impact Report, we share our approach to advancing sustainability in our work and the progress and impact we are making, including our strengths and our challenges.

In the pages that follow, you will see that HGA has the resources, the expertise, and the momentum to evolve the built environment from a significant contributor to the climate crisis to a significant solution. I hope you will join us in this monumental effort: building the world that future generations deserve.



Tim Carl, FAIA, LEED AP
Chief Executive Officer



Massachusetts Institute of Technology - MIT.nano | 2021 AIA COTE Top Ten Award Recipient
Front Cover: Marlboro Music Celia Bertin Reich Rehearsal Building & Music Library

CONTENTS

MAKING A POSITIVE IMPACT	1
A VISION FOR HOLISTIC DESIGN	2
OUR COMMITMENTS TO MEANINGFUL ACTION	3
HISTORY OF SUSTAINABILITY AT HGA	5
GROWING OUR SUSTAINABLE PRACTICE: THREE STRATEGIC INITIATIVES	6
STRENGTHEN THE NETWORK	7
INTEGRATE SUSTAINABILITY INTO OUR DESIGN PROCESS	9
ESTABLISH CLEAR ACCOUNTABILITY MEASURES	11
COMMITTED TO A SUSTAINABLE FUTURE	12

OUR VALUES

Start with curiosity. Build empathy.
Do the hard work. Seek originality.
Leave a legacy.

MAKING A POSITIVE IMPACT

Every act of sustainable design, engineering, planning, and construction contributes to our common future. At HGA we embrace this as both a responsibility and an opportunity. As we build physical environments that positively impact our planet, we also build relationships with other leaders and change-makers in the form of clients, employees, and partners.

GREAT DESIGN IS SUSTAINABLE DESIGN

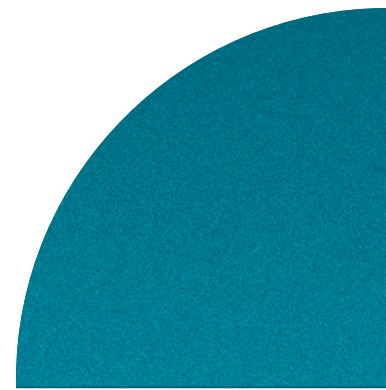
A beloved building—one so treasured it lasts for generations—is beautiful and sustainable. It supports the health and well-being of the community and inhabitants and reaches the highest levels of building performance. In 2021 we experienced a welcome growth in demand for sustainable design. This is not surprising, as the evidence of our impact on climate change has never been so clear: in 2020, the building sector generated nearly 50% of global carbon emissions from operations and construction materials.¹

In the past year we have made progress toward our sustainability commitments, completed projects with innovative and elegant solutions, and aligned our internal structure and processes to position our company and clients to create the greatest possible impact.

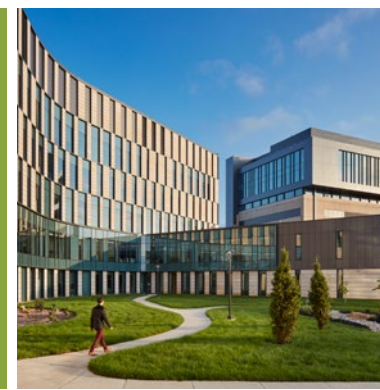
¹“Why the Built Environment?” *Architecture 2030*.

SUSTAINABLE DESIGN SERVICES

- CARBON NEUTRAL PLANNING & DESIGN
- CLIMATE ACTION PLANNING
- CLIMATE ADAPTATION
- DECARBONIZATION
- MASS TIMBER
- MICROGRIDS
- NET ZERO ENERGY
- RENEWABLE ENERGY & POWER GENERATION
- RESILIENCE PLANNING & IMPLEMENTATION
- SUSTAINABILITY MASTER PLANNING
- THIRD PARTY CERTIFICATIONS (LEED, WELL, ETC.)



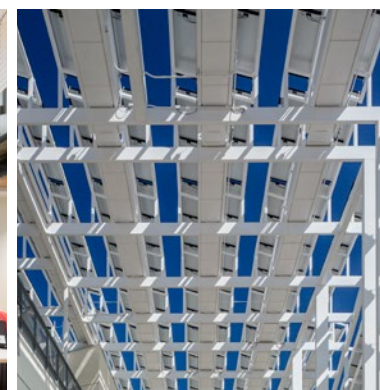
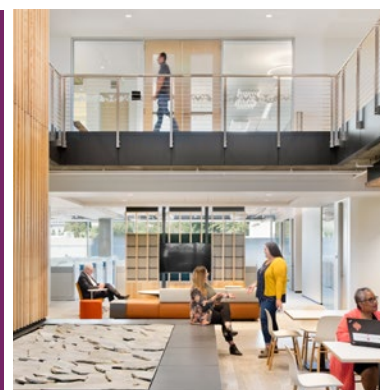
160
LEED PROJECTS
CERTIFIED
& REGISTERED



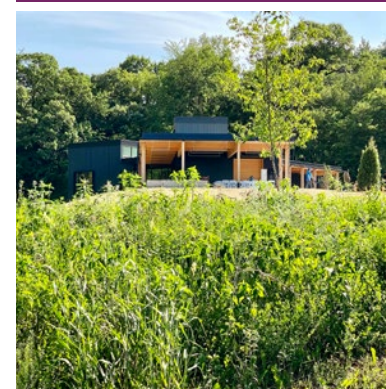
1ST
FULLY CERTIFIED
**LIVING BUILDING
CHALLENGE**
RENOVATION PROJECT
WORLDWIDE



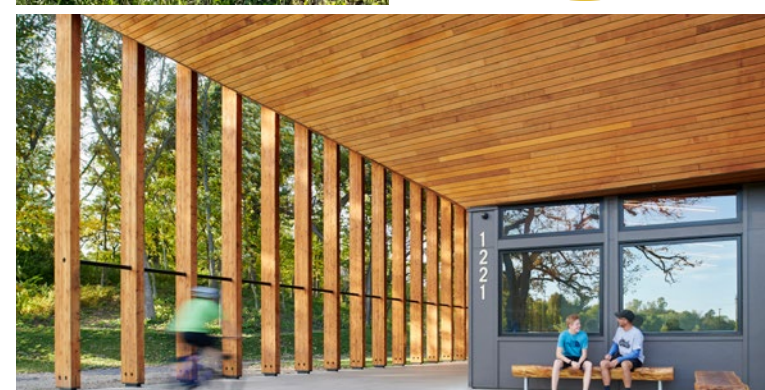
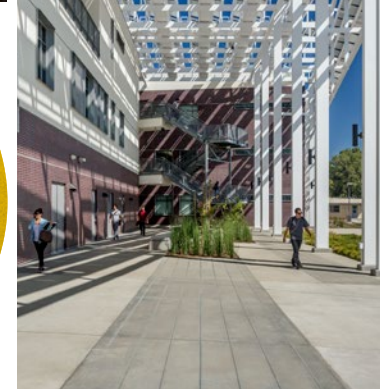
13
WELL ACCREDITED
PROFESSIONALS
ON STAFF



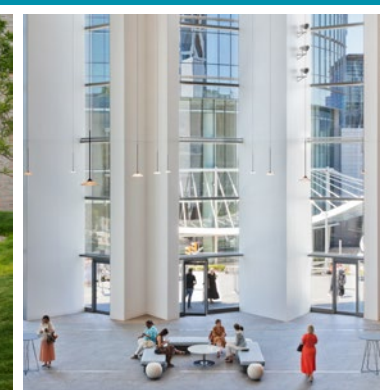
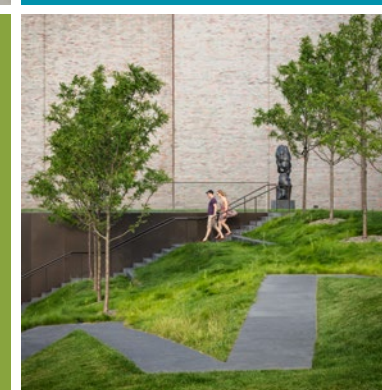
“
It is our responsibility to shape the future through design. We are inspired by the world we can build when our industry steps up to mitigate the devastating effects of climate change. We must reduce the carbon impact of our projects as quickly as possible—our clients, our children, and our communities depend on it.
TIM CARL, CEO



66
LEED GOLD
CERTIFIED
PROJECTS



197
LEED ACCREDITED
PROFESSIONALS
ON STAFF



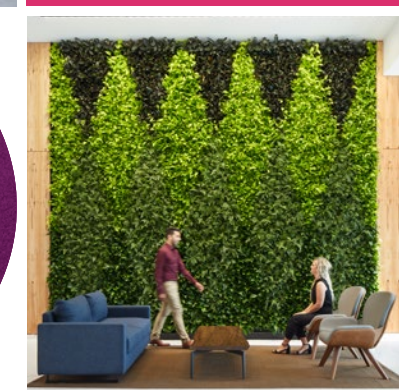
801
PROJECTS
REPORTED TO
**ARCHITECTURE
2030**



6
NET ZERO ENERGY
PROJECTS
CERTIFIED
& REGISTERED



4
WELL PROJECTS
CERTIFIED
& REGISTERED



A VISION FOR HOLISTIC DESIGN

HGA's long-term strategic priorities guide us in making a positive impact—for our clients, projects, and employees. Our approach to design aims to achieve integrated, sustainable solutions.

- 1. BUILD OUR VALUE AS A CURIOUS, RESEARCH-DRIVEN ORGANIZATION.**
We continue to advance and evolve a holistic approach to design, driven by insight into our clients, their market, and the human condition.
- 2. CULTIVATE EQUITY.**
By building an equitable and inclusive work environment for our employees, we are able to form thriving, diverse teams to serve our clients. This is integral to a holistic approach—addressing how and for whom we make a positive impact.
- 3. FOSTER A COLLABORATIVE, NIMBLE ENVIRONMENT.**
As a national, interdisciplinary design firm, we continue to build pathways for effective and efficient advancement of our practice—together.



GA Los Angeles

WHY HOLISTIC DESIGN?

Holistic design leverages interdisciplinary expertise, thoughtful research, and the engagement of a diversity of stakeholders to create a better project. It results in sustainable, resilient, and equitable outcomes that exceed our clients' goals and improve the human experience.

IT'S INTERDISCIPLINARY.

We incorporate sustainability goals into our projects from day one. Architects, engineers, landscape architects, and interior designers collaborate to develop decarbonization, well-being, and other sustainable design strategies from planning and design through operations. This approach enables vital knowledge-sharing and ensures that people have access to the expertise and resources they need to execute high performance project goals.

IT'S EMPATHETIC.

At the beginning of a client relationship, we actively listen to understand the client's goals, culture, and any future changes they anticipate will impact their business, campus, or community. This process shapes a vision that embodies the client's values. The vision is realized through ideas that reflect our deep understanding of all aspects of a project's performance goals: human experience, cultural significance, technical rigor, and systems efficiency.

IT'S BETTER FOR EVERYONE.

Our decades of holistic design experience serve our clients on sustainable new construction and renovation projects; with LEED, Living Building Challenge, WELL, and other third-party certifications; with resilient design planning and implementation; with infrastructure optimization; and through advocacy, research, and other partnerships. Our approach is inspired by the aspirations of each client, infused with our collective insight, and implemented as part of a holistic vision for a project's impact.

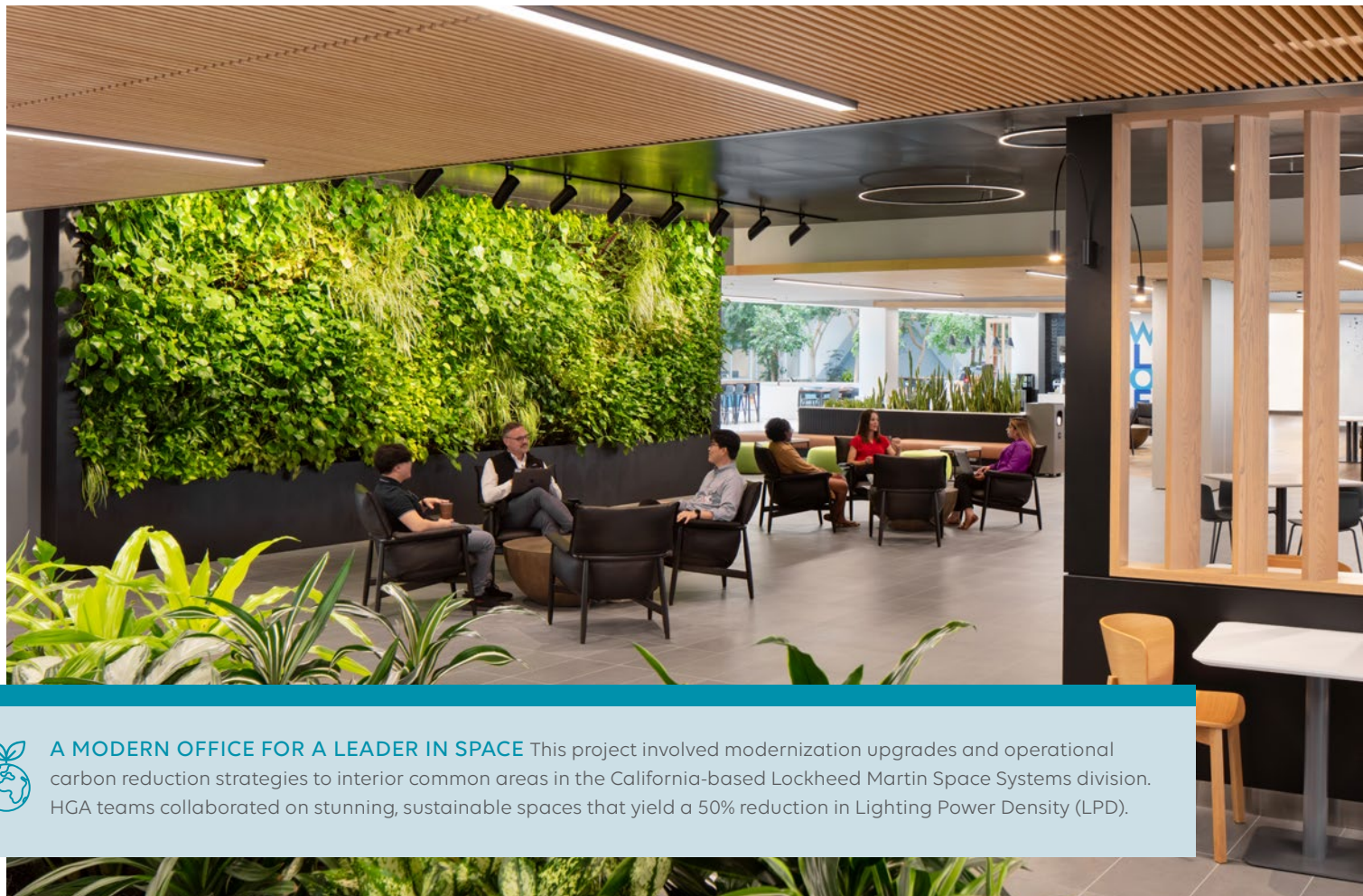
OUR COMMITMENTS TO MEANINGFUL ACTION

The time for talk is over. Significant change requires collective public agreement to set goals, establish plans to meet those goals, and hold ourselves and others accountable by reporting on progress. As a leader in the industry, HGA is a signatory to several key sustainability commitments, including AIA 2030, SE 2050, and the AIA Architecture & Design Materials Pledge.

AIA 2030: OPERATIONAL CARBON

As a founding signatory of the AIA 2030 Commitment to eliminate building emissions, we are advancing our clients' goals and challenging our industry by developing the expertise and research to push beyond net zero energy to net positive energy—from a neutral effect on health, safety, and resources to a positive one. As the need and desire for sustainable environments grows, so does the focus on high-performance buildings with sound data that we can share back with clients and our design teams.

PROGRESS: HGA interior projects are performing better than industry average in lighting power density (LPD) reduction, particularly those that include HGA's lighting designers. However, we are below reduction targets in whole building predicted energy use intensity (pEUI). We are currently working to improve that measurement by integrating energy benchmarking and analysis early in the design process.



A MODERN OFFICE FOR A LEADER IN SPACE This project involved modernization upgrades and operational carbon reduction strategies to interior common areas in the California-based Lockheed Martin Space Systems division. HGA teams collaborated on stunning, sustainable spaces that yield a 50% reduction in Lighting Power Density (LPD).

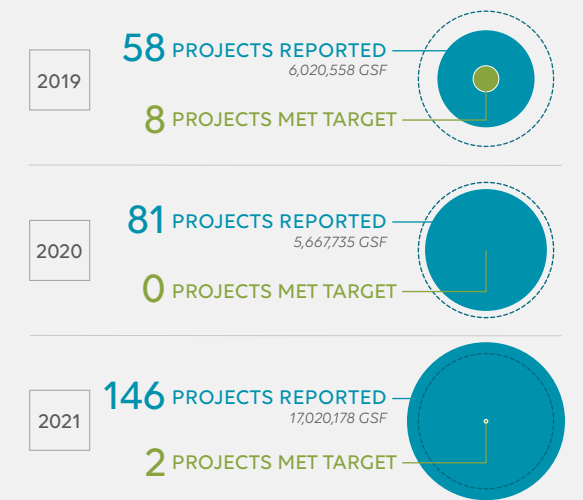
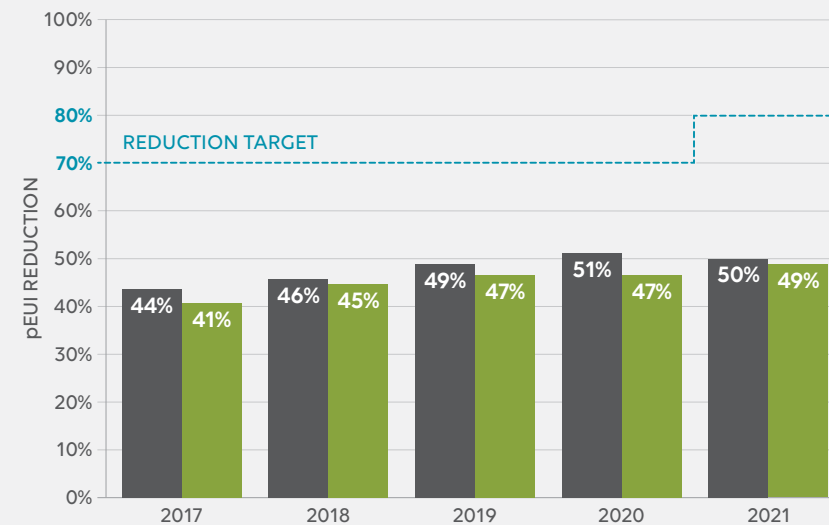
AIA 2030 COMMITMENT BY THE NUMBERS

REPORTING YEARS 2017 - 2021*

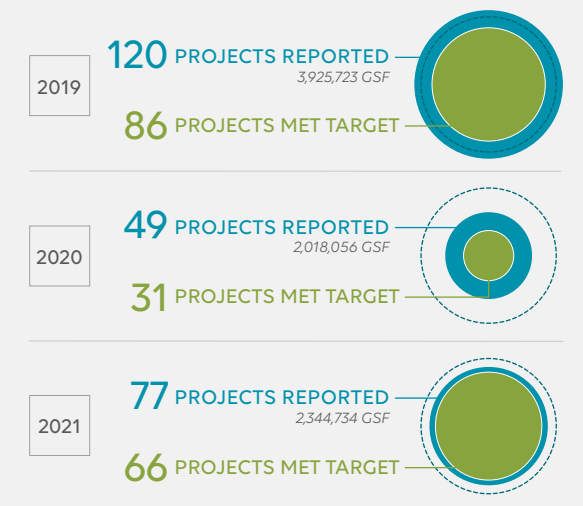
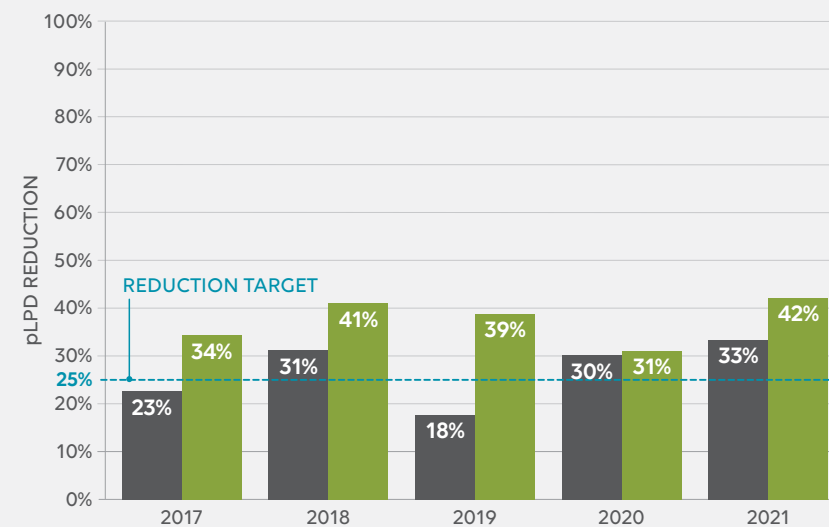
“ We are taking action on climate change. AIA 2030 and SE 2050 are important tools to reduce our carbon impact and to hold ourselves, and our industry, accountable.

ARIANE LAXO
DIRECTOR OF SUSTAINABILITY

WHOLE-BUILDING



INTERIOR-ONLY



■ NATIONAL INDUSTRY AVERAGE ■ HGA AVERAGE *HGA reporting includes projects that billed at least 200 hours within the calendar year. ○ = 100 PROJECTS



SUSTAINABLE ENGINEERING FOR A RESEARCH UNIVERSITY The Institute for Integrative and Innovative Research (I3R) at the University of Arkansas combines a highly efficient and flexible structural steel lab bar with a mass timber structured office and collaborative pavilion. Using a parametric design tool developed by our structural engineers, the design team optimized structural bay sizes while minimizing embodied carbon.



AIA MATERIALS PLEDGE

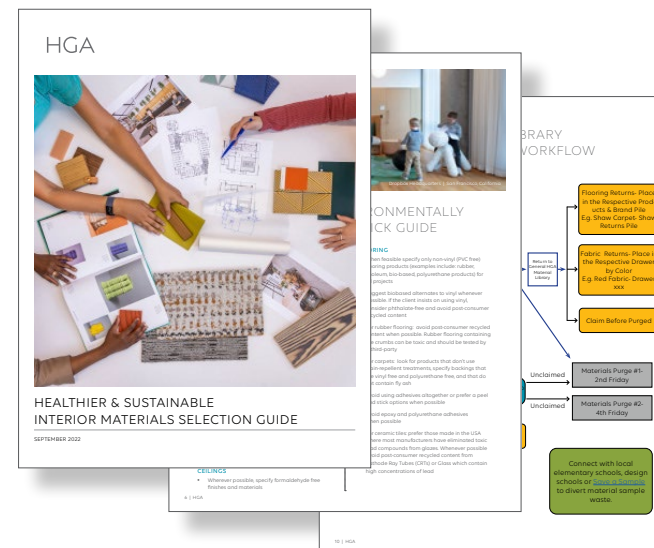
From improving indoor air quality to reducing construction waste, the materials we specify matter. Consider that just three materials—concrete, steel, and aluminum—are responsible for 23% of total global emissions.² Our choices represent an enormous opportunity to improve the health of the planet and its inhabitants.

To confirm our commitment to healthier and sustainable materials specifications, HGA has adopted the AIA Architecture & Design Materials Pledge, which includes five overarching directives to help inspire a shift in our industry. These directives are intended to support human health, social health and equity, ecosystem health, climate health, and a circular economy.

²“Why the Built Environment?” *Architecture 2030*.

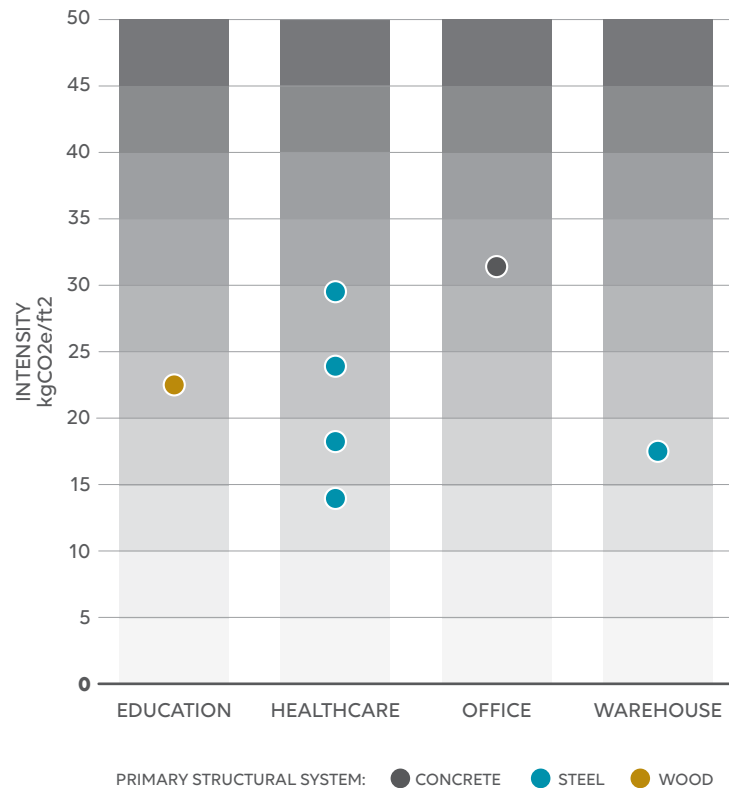
PROGRESS: We have developed and published our **Healthier & Sustainable Interior Materials Selection Guide**. This compilation of resources offers material selection guidance for projects of any size, budget or aspiration. The guide is intended to help our designers:

- Better understand materials composition.
- Select safer materials for humans and the environment.
- Design and build with healthier materials.
- Understand the differences between material transparency and chemical avoidance.
- Advocate for safer alternative products in the marketplace.



EMBODIED CARBON INTENSITY

SELECT HGA PROJECTS UNDER CONSTRUCTION IN 2022
CLOSER TO 0 IS IDEAL



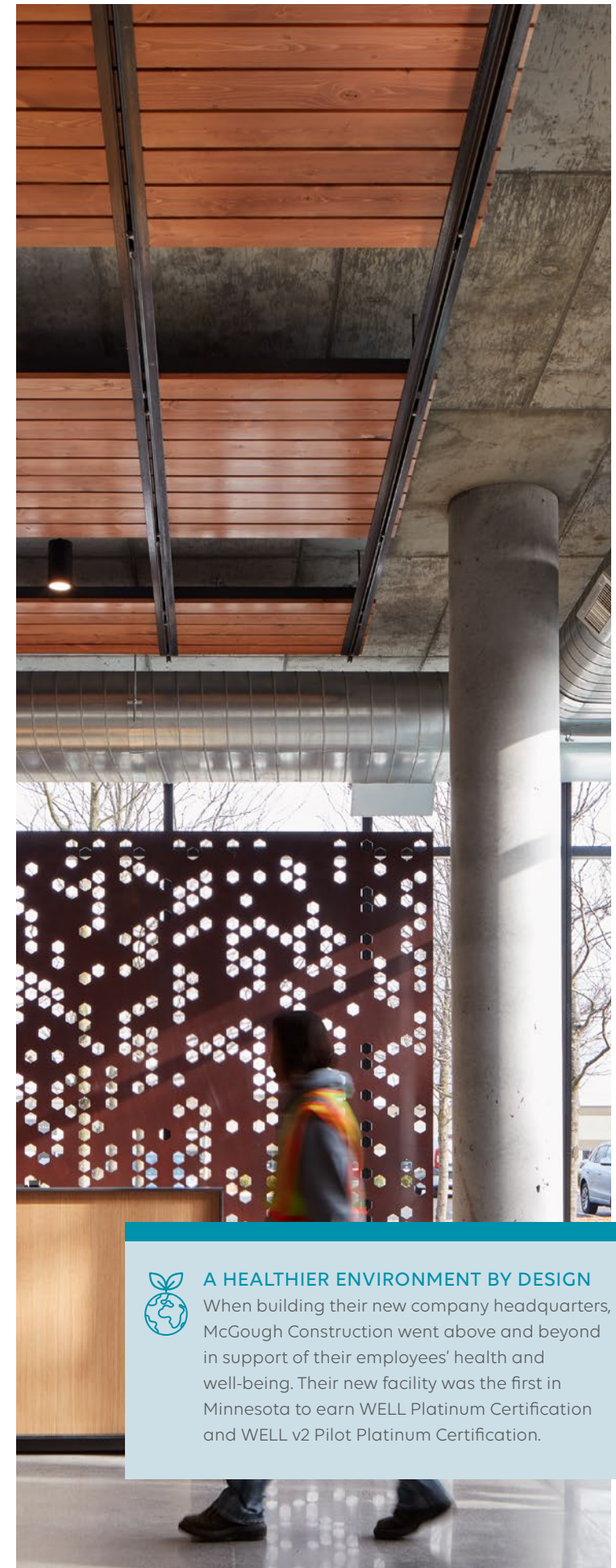
SE 2050: EMBODIED CARBON

As a signatory of SE 2050, our structural engineers are committed to adapting and improving current practices to reduce and eliminate embodied carbon in our building structures. Lengthening building lifespans, designing for circularity, and optimizing material quantities on projects will be crucial in our efforts to help mitigate the negative impacts of global warming.

While the requirement for SE 2050 is focused on structural systems, we have a framework in place that can be used to address embodied carbon in all building materials. Our **SE 2050 Embodied Carbon Action Plan** is used to increase our collective knowledge about embodied carbon and engage our clients and consultants in this conversation.

PROGRESS: Our Embodied Carbon Action Plan (ECAP) is complete. In the next five years we will:

- Deliver education for all employees, and engage in internal and external advocacy.
- Track and report carbon on new construction projects.
- Incorporate reduction strategies including pursuing lower-carbon concrete specifications, specifying sustainably sourced wood, optimizing structural design for material efficiency, salvaging reusable materials, and designing for building reuse or deconstruction.



A HEALTHIER ENVIRONMENT BY DESIGN
When building their new company headquarters, McGough Construction went above and beyond in support of their employees' health and well-being. Their new facility was the first in Minnesota to earn WELL Platinum Certification and WELL v2 Pilot Platinum Certification.

1953-2013

GRASSROOTS

From the earliest days, HGA projects integrated daylight, biophilia, and close relationships with natural landscapes. As engineering disciplines joined the firm, leadership in energy efficiency began to grow.



1950s

WELL-BEING IN SCHOOLS

K-12 schools maximized daylight access while orienting to minimize solar heat gain.



1986

1ST FOSSIL FUEL FREE PROJECT

H.B. Fuller Company
Willow Lake Research Lab



2000

1ST COTE TOP 10 AWARD

McLean Environmental Living and Learning Center
In partnership with LHB

2006

1ST LEED CERTIFIED PROJECT

Marine Terminal Renovation



2009



Founding signatory of
AIA 2030 COMMITMENT



2010

1ST PROJECT DESIGNED TO NET ZERO ENERGY

College of the Desert
Master Plan

2014-2017

CONNECTED

Expansion to multiple offices across the country made the need for coordinated sustainability initiatives clear. Efforts to connect high performance experts from across the firm led to a strategic vision for elevating sustainability across our practice.

2014

SUSTAINABILITY COUNCIL FORMED

connecting champions from all offices and disciplines to develop education, tools, and resources to support project teams.

2015

RESILIENT DESIGN TASK FORCE FORMED

to begin developing resilient design and climate change adaptation services.



2016

FUTURE OF SUSTAINABILITY TASK FORCE FORMED

HGA's CEO charged our Sustainability Council with identifying a path to an integrated sustainable design practice.

1ST FITWEL CERTIFIED PROJECT

B.H. Whipple Federal Building



2018-2019

CENTRALIZED

To advance our sustainable practice, HGA created a centralized team of experts, led by the Director of Sustainability. Project teams would leverage their expertise in energy modeling, sustainability project leadership, and certifications administration.

nbi

2018

HGA named as a
TOP ZERO ENERGY FIRM
by the New Building Institute

DIRECTOR OF SUSTAINABILITY
position created



SUSTAINABLE ENGINEERING GROUP (SEG)

in Madison, WI joined HGA, strengthening our expertise in energy modeling, commissioning, renewable energy, carbon neutral planning, and zero energy design.

2019

MASS TIMBER STRUCTURAL EXPERTISE DEEPENED

HGA's Microgrant Program funded development of a custom parametric design tool for optimizing mass timber structures.



1ST PROJECT WITH INTEGRATED CLIMATE RISK ASSESSMENT COMPLETED

Derby Line Land Port of Entry

2020-TODAY

DISTRIBUTED NETWORK

We understand that sustainability must be everyone's job. To achieve a baseline of high performance across all of our work, we shifted our model to a distributed network of experts and champions contributing to project and firmwide strategic priorities, coordinated by the Director of Sustainability.

- **SUSTAINABILITY NETWORK RESTRUCTURED** — Steering Committee, National Council, Local Councils
- **STRATEGIC PRIORITIES** identified
- **BUILDING PERFORMANCE GROUP** (formerly SEG), named, including energy and third-party certification expertise



2020

AIA COTE TOP 10 AWARD

Massachusetts Institute of Technology - MIT.nano



1ST ZERO ENERGY CERTIFICATIONS AWARDED

- Forest Edge Elementary School
- Westwood Hills Nature Center



1ST SITES CERTIFIED PROJECT

FBI/DOJ - Central Records Complex



2021

1ST FULLY-CERTIFIED LIVING BUILDING CHALLENGE RENOVATION PROJECT WORLDWIDE

Wolf Ridge Environmental Learning Center



AIA FRAMEWORK FOR DESIGN EXCELLENCE

and integrated sustainability into strategic plan



Signed
SE 2050 COMMITMENT
and created Embodied Carbon Action Plan



2022

1ST WELL CERTIFICATION AWARDED

McGough Construction Corp. Headquarters

SIGNED AIA MATERIALS PLEDGE



HISTORY OF SUSTAINABILITY AT HGA

Since our founding as an interdisciplinary firm in 1953, we have broadly defined great design to include sustainable principles. Today our holistic approach to design encompasses research-driven, equitable, and sustainable practices that address resources, performance, biodiversity, and ecological well-being.



GROWING OUR SUSTAINABLE PRACTICE: THREE STRATEGIC INITIATIVES

Intentionality is paramount to making progress toward our goals. We have invested careful thought in how to structure our organization to attain our sustainability goals. Our plan is ambitious and achievable. The high-performance projects we have designed over the years are evidence: we have the knowledge and tools to design for climate change. Our challenge is to continue to elevate our practice by infusing the deep sustainability knowledge from successful past projects into all of our work. To do that we are focusing on three key initiatives.

1. STRENGTHEN THE NETWORK
2. INTEGRATE SUSTAINABILITY INTO OUR DESIGN PROCESS
3. ESTABLISH CLEAR ACCOUNTABILITY MEASURES

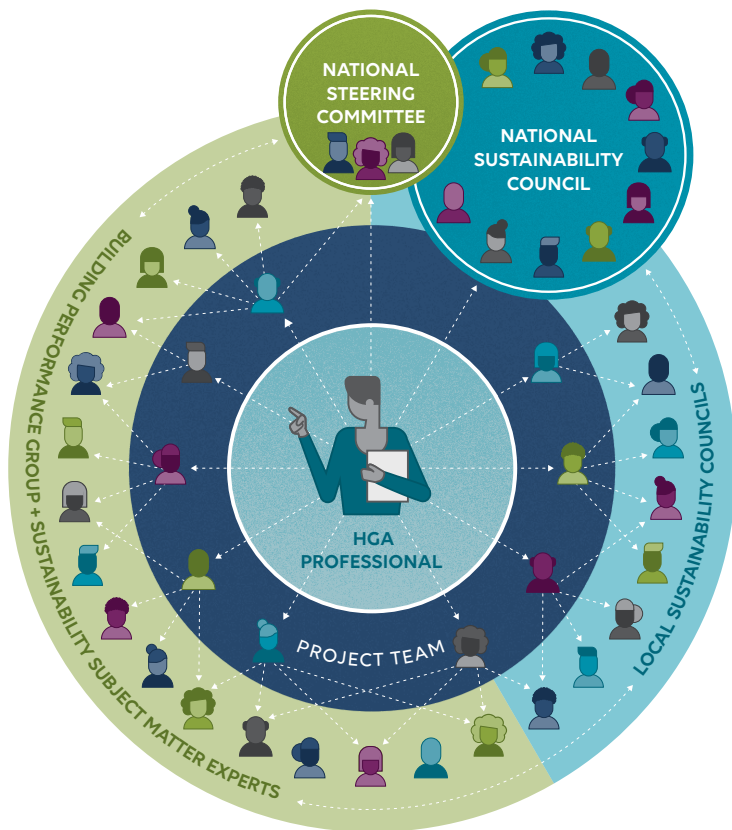


INITIATIVE 1

STRENGTHEN THE NETWORK

Building and connecting a network of expertise empowers our people. Everyone at HGA will be within two degrees of separation from the person, resource, or answer that they need to deliver on any project or client need. In the past two years, we have taken several steps to strengthen our sustainability network:

- Created a **SUSTAINABILITY STEERING COMMITTEE** with representatives from HGA's major market sectors and disciplines: arts, community, and education; energy and infrastructure; government and corporate; healthcare; science and technology; interior design; and engineering.
- Re-envisioned our **NATIONAL SUSTAINABILITY COUNCIL**, bringing together subject matter experts from across the firm to create tools, refine the design process, and identify education needs.
- Created **LOCAL SUSTAINABILITY COUNCILS** in each office to help "walk the talk" in setting local priorities and fostering cultural change through dialogue, education, design critiques, and project mentorship.
- Grew our **BUILDING PERFORMANCE GROUP** with energy and certifications specialists, supporting all regions and connecting to all market sectors.
- Identified our **SUBJECT MATTER EXPERTS** and how to leverage their expertise on projects of all scales in all offices.



DEEP EXPERTISE IN BUILDING PERFORMANCE

HGA's Building Performance Group is a team of subject matter experts specializing in third-party certifications and energy. Their expertise includes:

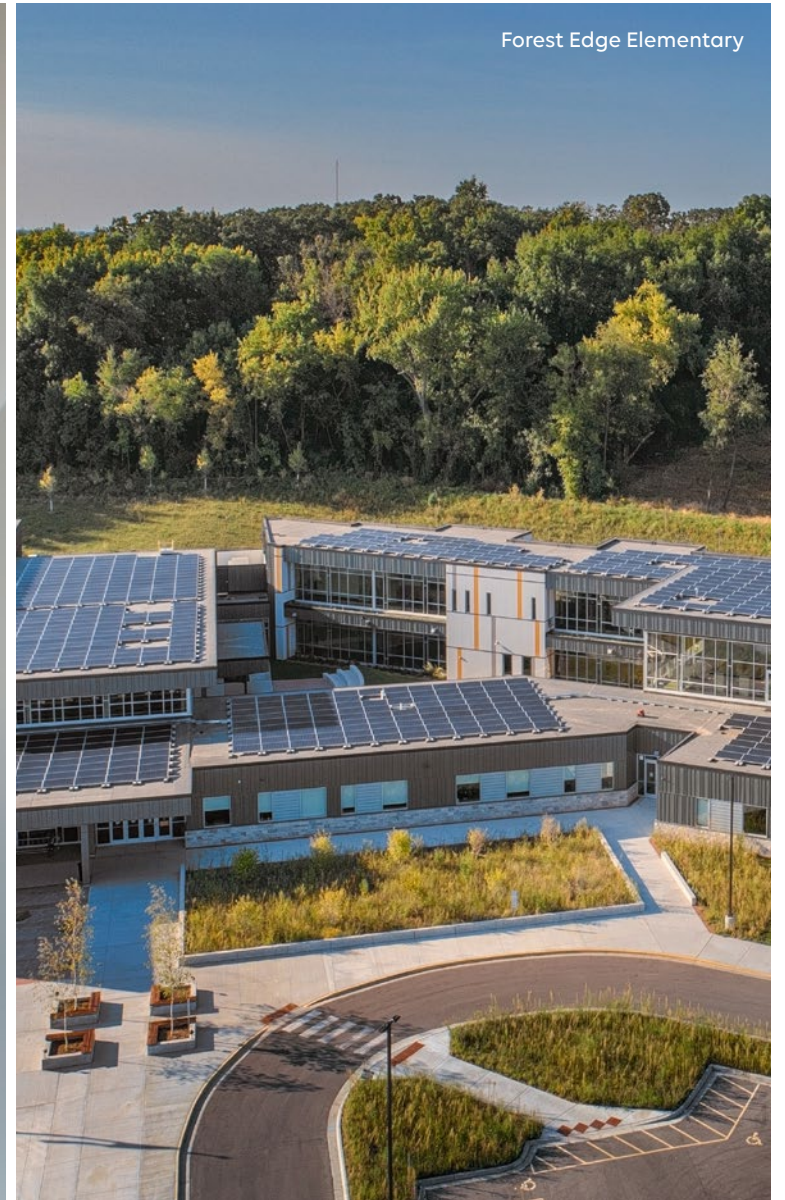
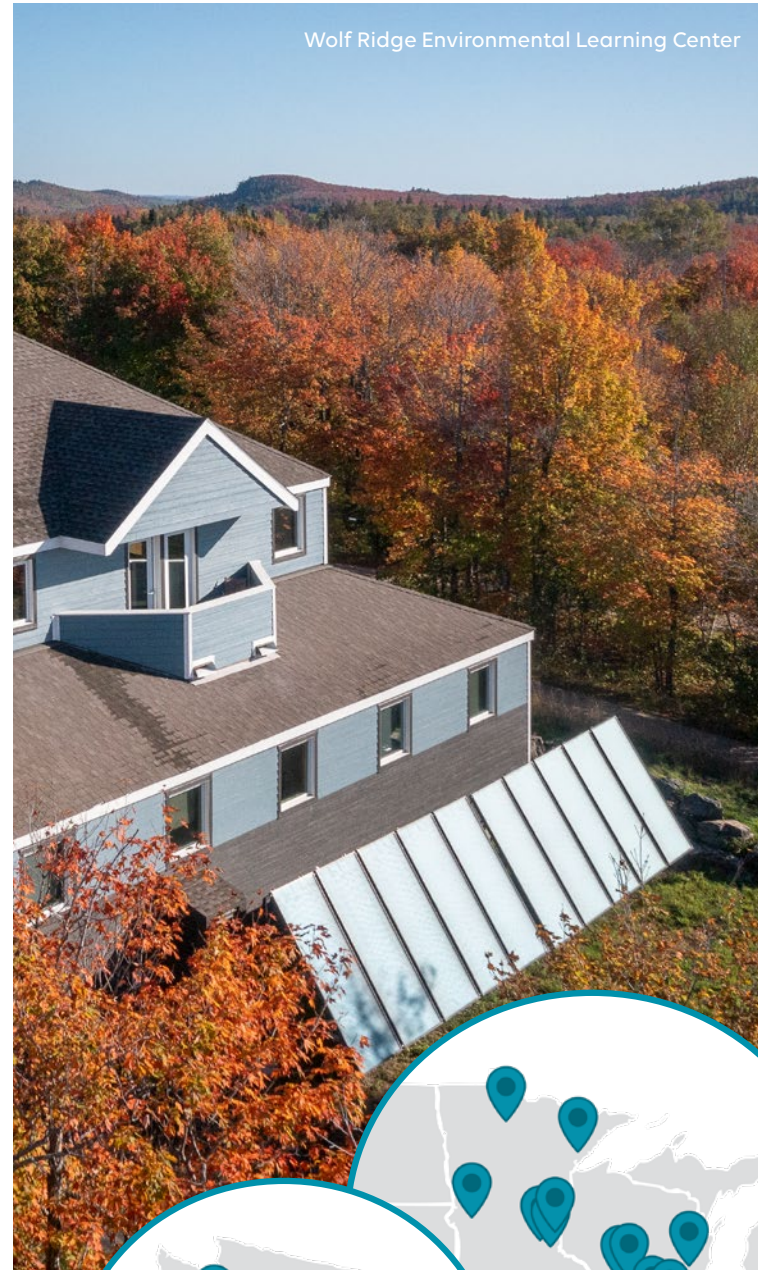
- | | |
|--|--|
| <ul style="list-style-type: none"> • Certification administration, including: LEED, WELL, Living Building Challenge, Minnesota B3, and SITES • Commissioning and retro-commissioning • Decarbonization strategies and net zero energy | <ul style="list-style-type: none"> • Environmental analysis and energy modeling • Integrated renewable and high-performance systems such as geothermal and solar PV • Microgrid design • Utility energy programs |
|--|--|

OPTIMIZING A MULTI-PLANT SYSTEM WITH MINIMAL MODIFICATIONS The University of Wisconsin-Madison campus includes 24 million GSF of buildings on 936 acres. Its central utility plants are the campus' lifeblood providing heating, cooling, power and other systems required for smooth operations. HGA developed a customized predictive software package that the plant uses as a tool to set its daily and weekly dispatch strategies for the manually dispatched plants—paving the way for up to \$1.3 million in annual operating savings.

CULTIVATING SUSTAINABILITY EXPERTISE

HGA is a learning organization that values curiosity and the continued growth of knowledge. Every team has the knowledge, tools, or connections to set and execute sustainability goals on all types of projects. Staying up to date is critical; we are continually adding to our robust program of education, knowledge sharing, and fieldwork training available to all employees. Recent efforts include:

- Developed strategy for filling knowledge gaps through education, mentorship, knowledge sharing, and hiring.
- Introduced employee self-assessment of sustainability knowledge to identify areas for training.
- Launched internal education on AIA Framework for Design Excellence, AIA 2030 Commitment, embodied carbon, and mass timber.
- Created employee onboarding video, "Introduction to Sustainability at HGA" to communicate our "why," to emphasize holistic project goals, and to introduce resources.
- Engaged in design competitions to elevate our practice, including the international ASHRAE LowDown Showdown, which HGA won in 2020, and the California-based Architecture at Zero Competition.



14 NORTHERN CLIMATE NET ZERO ENERGY PROJECTS

PLANNED & CERTIFIED PROJECTS IN NEW YORK, MINNESOTA, WASHINGTON & WISCONSIN

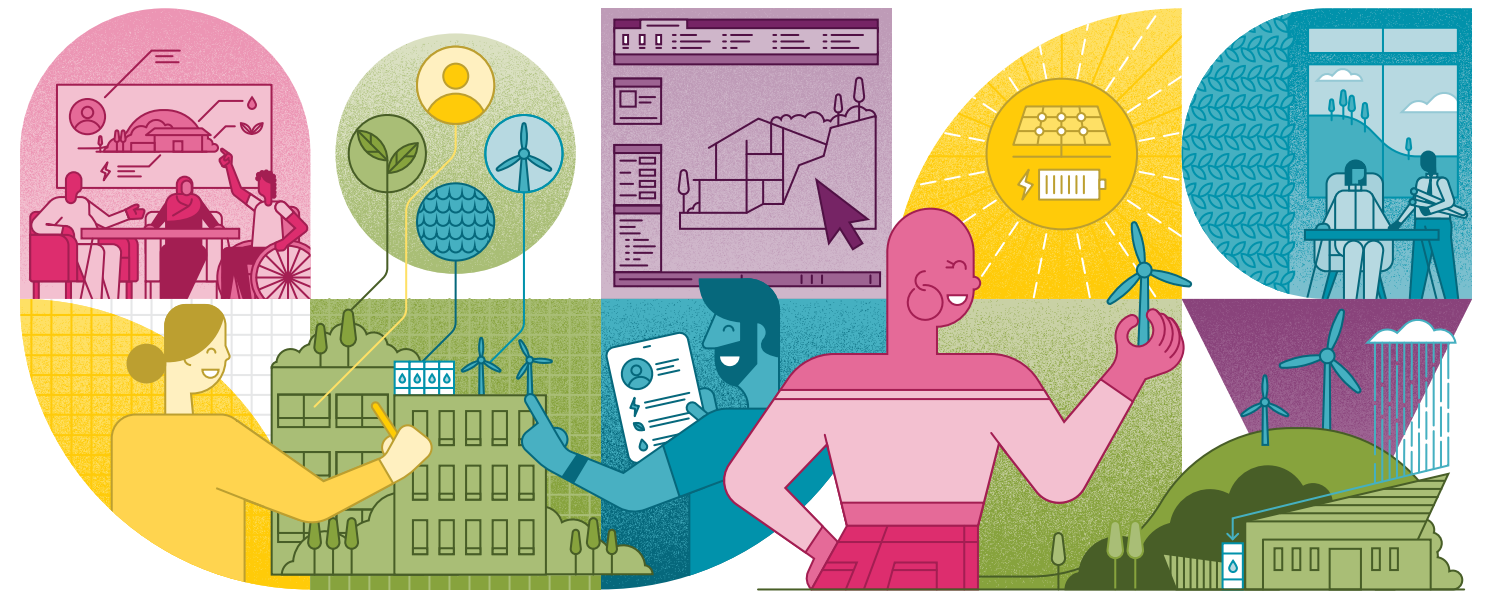
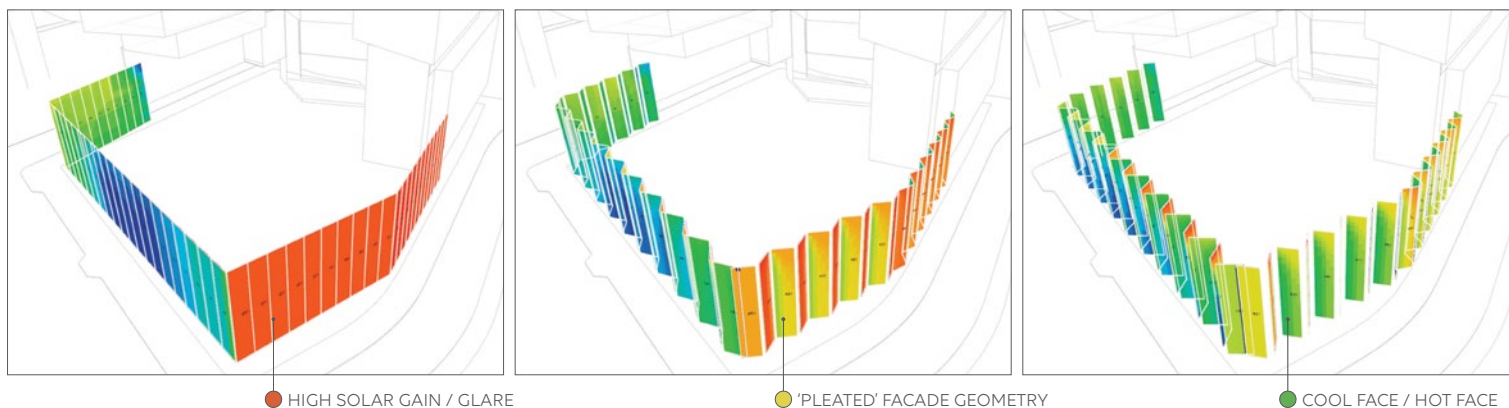


ACHIEVING NET ZERO ENERGY IN COLD CLIMATES

While great strides have been made in delivering net zero energy buildings throughout the country, this goal is still presumed to be a challenge in colder climates due to increased heating loads. In partnership with our clients, HGA has designed net zero energy and fossil fuel free projects by using proven energy reduction strategies, high performance systems, and renewable energy sources. The first HGA-designed fossil fuel free project opened in 1986 and interest in net zero energy has grown exponentially in decades since. With verified performance data, these three net zero energy projects demonstrate attainable high performance in northern climates:

- 
WOLF RIDGE ENVIRONMENTAL LEARNING CENTER (FINLAND, MINNESOTA) The major renovation of the Margaret A. Cargill (MAC) Lodge dormitory in Minnesota's north woods is the first renovation project and the first in Minnesota to receive full Living Building Challenge (LBC) certification, including net zero energy.
- 
WESTWOOD HILLS NATURE CENTER (ST. LOUIS PARK, MINNESOTA) Designed as a conservation teaching tool in a 160-acre park, this Zero Energy Certified urban nature center incorporates passive and active strategies for energy efficiency including a high-performance envelope, advanced lighting, and effective use of proven heat pump technologies.
- 
FOREST EDGE ELEMENTARY (FITZBURG, WISCONSIN) The first net zero energy school in Wisconsin, this 126,580 SF facility includes geothermal wells, a 1,700-panel solar PV array, 125kW battery, and electrochromic glass. A real-time energy dashboard helps students learn about energy efficiency.

STRIKING THE RIGHT NOTES Capital One Hall, a LEED Gold Certified entertainment venue, has become a beloved cultural amenity in the growing Tysons, VA community. The integrated design team achieved many facets of high performance, including tuning the envelope geometry and the arrangement of stone and glass to balance form, maximize daylight, and minimize heat gain.



INITIATIVE 2

INTEGRATE SUSTAINABILITY INTO OUR DESIGN PROCESS

Throughout our nearly 70 years of experience, we have developed an integrated, holistic approach to our work at HGA, focusing on teams rather than silos. Collaboration happens early and often, resulting in innovation throughout the design process. With the impacts of climate change growing every day, this mindset is even more important—we have no time to waste.

We are continually identifying potential new methods and opportunities for improvement based on practice and research; testing those new ideas; and using lessons learned to inform future improvements.

To ensure that sustainability is fully embedded in design, we encourage design teams to use the AIA Framework for Design Excellence as a guide for project goal setting and conversations with clients throughout the process. The AIA Framework aligns with our dedication to holistic design as it addresses resources, human and ecological health, equitable communities, and research.

In 2020, project teams began piloting the AIA Framework, testing the limits of what could be accomplished on a variety of project types with different priorities, budgets, and schedules. In 2021, the pilot program grew to include over a dozen projects. This year, a variety of projects large and small are using the AIA Framework at every stage of the design process, adapted to support the unique needs of each client.

Our comprehensive baseline design process includes:

1. **IDENTIFYING A SUSTAINABILITY LEAD** on the design team who is responsible for leading the project team and client through sustainability goal setting; identifying design strategies to achieve those goals; and ensuring those strategies are represented in design and construction documents. Currently, 28% of HGA projects have identified sustainability leads. Our goal is to reach 50% by the end of 2023 and 100% by 2025.
2. **SETTING SUSTAINABILITY GOALS FOR EVERY PROJECT** in partnership with the client. If applicable based on project scope, this will include setting targets for operational carbon and embodied carbon in alignment with AIA 2030 and SE 2050 commitments.
3. **TRACKING PROGRESS** toward achieving those goals, including annual reporting for AIA 2030 and SE 2050.

STRATEGIES & TOOLS

In collaboration with our clients, we aim to establish a holistic vision for every project. This includes sustainability goals such as specific energy performance, carbon emissions reduction, or third-party certification.

With the project vision in mind, our team identifies specific and measurable sustainability strategies which may include energy efficiency targets, water use reduction, or healthy material specifications. These strategies may be tied to a third-party certification system such as LEED, whether actually certifying or simply using as a tool to track sustainability outcomes.

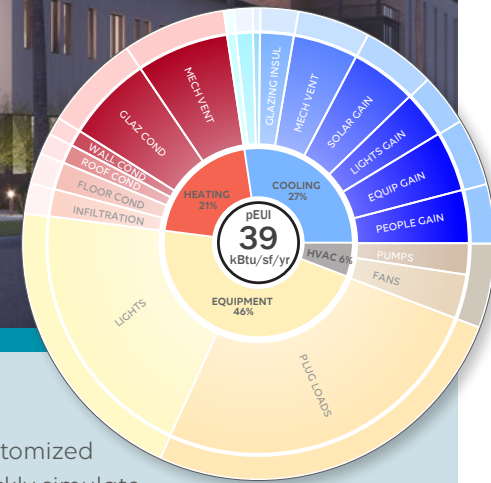
During the design process, teams use advanced building simulation and analysis tools to create a direct and immediate feedback loop (see graphic below).

The complex interaction of many design decisions can be tested collectively as bundles, determining the best combination of strategies for lowest cost and greatest gains optimizing performance. Because this work is performed as an integrated part of the design process, simulation findings can be interwoven, enabling the emphasis to remain on experiential quality while never losing sight of the project's sustainability goals.

MAKING SUSTAINABILITY SECOND NATURE

Sustainability is integrated into our design process tools and resources, from specifications to documentation, project visioning virtual whiteboard templates to quality review tools. Most recently, we have:

- Developed **ENERGY.script**—a custom grasshopper script—in partnership with CAUSE Sustainability, empowering architects to understand predicted energy use in the earliest stages of design.
- Included transparency expectations for interior finish materials in our master specifications, requesting disclosure of VOC content, material inventories (such as HPDs) and environmental product declarations (EPDs).
- Added LEED v4 language into our master specifications, construction administration manual, and quality guidelines.
- Created a high performance envelope resource for project teams to use when developing their construction documents.



A PATHWAY FOR EARLY ENERGY ANALYSIS

Energy use reduction strategies have the greatest impact when identified early. Our customized ENERGY.script workflow helps architects during beginning design stages easily and quickly simulate predicted energy use; identify key energy reduction or optimization strategies; and directly compare the impact of each, allowing for changes to be made when they are most cost-effective.

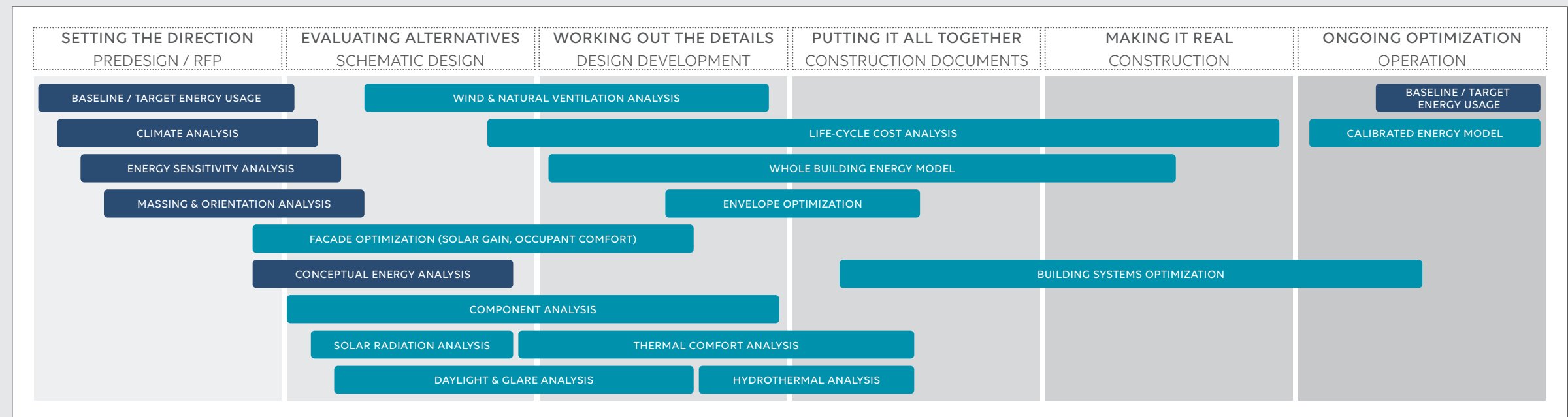


UC RIVERSIDE STUDENT HEALTH & COUNSELING CENTER (RIVERSIDE, CA) For UC Riverside's new health and wellness center, ENERGY.script was run in conjunction with energy use intensity (EUI) benchmarking to help our design team analyze the historical EUI of the program type in the arid climate. Using benchmarking and analysis outputs, the design team identified conservation measures for each of the main energy drivers so they could effectively reduce the energy use of the building.

INTEGRATING HIGH-PERFORMANCE GOALS INTO THE DESIGN PROCESS

We work with our clients to achieve sustainability goals that align with their values—all within the project budget. Our team uses building simulation and analysis workflows to create a feedback loop between design decisions and their impacts on sustainability goals. This diagram highlights baseline workflows and those used to optimize performance.

- BASELINE WORKFLOWS
- OPTIMIZATION WORKFLOWS





INITIATIVE 3

ESTABLISH CLEAR ACCOUNTABILITY MEASURES

How are we doing as an organization? We know that sustainability is everyone’s job, and that every project is an opportunity to positively impact people and planet. But to successfully advance sustainability in our work, we must be transparent about the progress and impact we are making, including our strengths and our challenges.

Internal and external accountability is integral to the way we work. In other words, we can’t manage what we don’t measure. To date our accountability structure includes:

- Sustainability leaders tracking and reporting to collective databases for major industry commitments AIA 2030 and SE 2050; also tracking and reporting internally for major commitments and the AIA Materials Pledge.

- Project Managers integrating sustainability leads into project workplans.
- Market Sector Leaders partnering with their Sustainability Steering Committee Liaison to establish market sector-specific goals and track progress.
- Integrating sustainability into our firmwide strategic plan—the success of the firm is measured in part by whether we achieved our sustainability goals.

“ It is our responsibility to elevate the level of sustainable design on every project we touch, because good design and sustainable design are inseparable.

TIM CARL, CEO

WITHIN OUR OWN OPERATIONS

In addition to client projects, we recognize that our own operations present an opportunity to take action and demonstrate accountability.

LEED CERTIFICATIONS AT HGA

For decades, LEED certification has been a benchmark of sustainable performance in design, construction, maintenance, and operation. Four of our 12 offices have achieved LEED Gold or Platinum certification. Moving forward, we are committed to using every lease renewal, expansion, or move as an opportunity to evaluate certification programs, and plan to certify every office through a third-party verified program, whether LEED, Fitwel, Living Building Challenge, or WELL.

WELL HEALTH-SAFETY RATING

We want our employees and visitors to feel confident that HGA’s post COVID-19 workspaces are as safe and healthy as possible. Our commitment to employee and client well-being is demonstrated through the newly achieved WELL

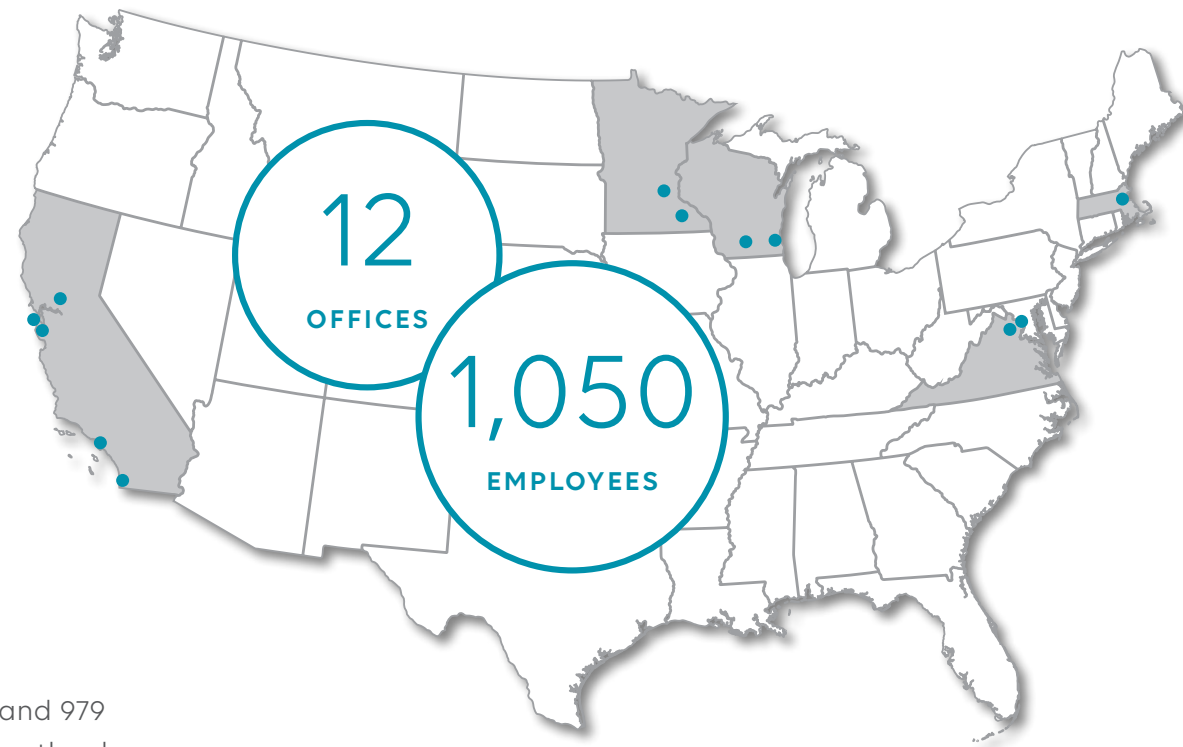
Health-Safety Rating by the International WELL Building Institute (IWBI) in our Minneapolis and Sacramento offices. By the end of 2023, all HGA offices are expected to achieve the WELL Health-Safety Rating—a visible sign that best practices have been adopted and third-party verified.

UNDERSTANDING OUR OWN CARBON FOOTPRINT

In tandem with helping our clients reduce their carbon footprints, we are evaluating our own operations and setting quantitative goals and strategies to actively reduce our carbon footprint with the goal of decarbonizing our own offices. We conducted pre-pandemic carbon footprint analysis of all offices to determine the baseline; we are currently tracking carbon footprint of all offices for 2022 and will identify opportunities for reduction. Current initiatives include encouraging public transportation; reducing operational energy use; reducing water use; evaluating and reducing equipment energy use; and purchasing products with reusable, recyclable, or compostable materials.



A LIVING LAB IN MADISON Our Madison team works out of a historic commercial building renovated and optimized for energy efficiency. Strategies include waste heat recovery, natural ventilation, a solar photovoltaic rooftop system, and real-time energy use monitoring.



THANK YOU!

To our sustainability network of champions—and 979 additional colleagues from across the country—thank you for making a regenerative future possible for our clients and our communities.

SUSTAINABILITY STEERING COMMITTEE

- Alissa Kingsley
- Ariane Laxo
- Arlen Li
- Ethan Fogle
- Glenn Waguespack
- Julian Master
- Marc L'Italien
- Mark Bultman
- Svein Morner
- Tracy Randall

BUILDING PERFORMANCE GROUP

- Adam Jablonski
- Alayna Lotto
- Alex Harris
- Andy DeRocher
- Bryanna Krekeler
- Denise Tran
- Drew Dillmann

- Elizabeth LeRiche
- Jarod Little
- Johanna Turko
- Kelsey Anderson
- Leah Wirgau
- Maggie Pipek
- Manus McDevitt
- Molly Dunlap
- Raisa Saif
- Russell Knudson
- Svein Morner
- Wade Cooper

SUSTAINABILITY COUNCIL & KNOWLEDGE COMMUNITIES

- Aaron Mullins
- Abby Cridland
- Alex Terzich
- Alexa Choles
- Allie Ditzel
- Amanda Henderson
- Andrew Vavoulis

- Anna McGee
- Carol Sylvester
- Cheryl Li
- Dan Kalkman
- David George
- David Wilson
- Elena Nansen
- Emily Savoca
- Haley Nelson
- James Willsie
- Kate Egan
- Kate Walker
- Kera Lagios
- Kevin Kaufman
- Kevin Standlee
- Marcell Graeff
- May-Lin Chang
- Natalie Rethlake
- Patrick Doss-Smith
- Robert Aydlett
- Shawn Sullivan

- Sophie Kjeldgaard
 - Tiera Robinson
- ## CHAMPIONS & CHANGEMAKERS
- Annelise Hodge
 - Clare Tande
 - Jennifer Haferbecker
 - Leighton Deer
 - Patrick Cipriano
 - Rachel Schenk
 - Scott Lindvall
 - Stephen Burk
 - Suzanne Ferris
 - Teri Firkins
 - Terri Howard
 - Tim Carl

COLLABORATORS

- Erika Eklund
- Kira Gould
- Molly Eagen



COMMITTED TO A SUSTAINABLE FUTURE

The climate crisis, global demands for social justice, and the threat of another recession have left us with a critical choice: will we continue doing our best without making significant changes to reduce our negative impact on future generations, or will we redesign our buildings and communities, decarbonize, and create a world that regenerates, restores, and thrives? We know the work ahead is tremendous, and yet we believe that a better world is possible—and even better yet—attainable.

In this report, you've seen our commitments to our clients, our teams, and our communities. Our work to date has laid the foundation for exponential growth in a sustainable practice to create this aspirational future. The degree of global change required will only be possible when we all commit to the hard work ahead. We must be part of the solution.

Will you join us?

Ariane Laxo, CID, IIDA, LEED AP ID+C, EDAC
Director of Sustainability