



**2024**

**SUSTAINABILITY**

**ACTION PLAN**

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## 1. Vision

We continually assess the newest advancements in sustainability, design, and construction, understanding that solutions emerge not only through innovative technologies but also by transforming our approaches to materials, natural resources, and energy use. As we progress towards 2030 and further, our goal is to deepen our comprehension of the environmental issues confronting human societies. We aim to deliver effective solutions within our field and integrate sustainable design seamlessly into our everyday practices.

Incorporating environmental sustainability into the essence of architectural practice requires a paradigm shift, elevating it to the importance of adhering to codes, principles of robust structural and mechanical design, and fulfilling client objectives. To achieve this, we contemplate creating innovative roles within our firm, enhancing our focus on sustainable and energy-efficient designs. Introducing a Sustainability Leader for each project team could spearhead this initiative, ensuring that sustainability goals are integrated from the outset.

Moreover, we're exploring how our designs can contribute to a circular economy, prompting a reevaluation of buildings as lifecycle products. This approach considers not just the environmental impact but also the social and economic implications, fostering a more sustainable, circular flow of resources.

By addressing these considerations, we aim to refine our sustainability objectives, guiding our firm towards practices that not only meet current standards but also anticipate future challenges and opportunities in environmental stewardship.

## 2. Sustainability Objectives

Our action plan outlines clear, strategic objectives aimed at integrating sustainability into every aspect of our projects.

- **Carbon Reduction Targets:** Help clients define and achieve their carbon reduction goals, covering all aspects from construction to operational and embodied carbon emissions.
- **Integrated Design Approach:** Utilize integrated design principles to enhance sustainability efforts, leveraging the collective expertise of our team, clients, design partners, and builders.
- **Sustainable Materials Selection:** Collaborate with suppliers to choose materials and products that minimize environmental and human impact from extraction to end-of-life.

- **Performance Tracking:** Streamline the collection and analysis of data on operational and embodied carbon to refine our project performance assessment tools.
- **Education and Awareness:** Increase knowledge among our team and clients about crucial topics like global warming, the circular economy, and resilient design to align with certification standards and ESG objectives.
- **Pursuing Carbon Neutrality:** Strive for carbon-neutral and even carbon-positive project outcomes through innovative design solutions.
- **Professional Accreditation:** Encourage LEED or equivalent sustainability accreditation among our staff, aiming to increase the number of accredited professionals and integrate green building practices into all projects.
- **AIA 2030 Commitment:** Work towards reducing building energy use and promoting sustainable design, tailoring strategies to fit client goals and financial capabilities, regardless of the pursuit of formal certifications.

These objectives are not just goals but commitments to our clients, our community, and our planet, marking our path towards a sustainable architectural practice.

### 3. Team Development

Effective teamwork and open communication with our clients are essential for our project success. We're expanding our dialogue across the broader architectural network, including manufacturers, sustainability consultants, architectural and engineering firms, and ESG professionals, to share insights and collaboratively address challenges. Here are the strategies and actions that underpin our objectives.

- **Implement Comprehensive Training Programs:** Offer regular sustainability training and workshops to ensure all team members are up to date with the latest green building practices, certifications (e.g., LEED, WELL), and sustainable design innovations.
- **Foster Cross-Disciplinary Collaboration:** Create multidisciplinary project teams that include architects, engineers, and sustainability specialists to encourage diverse perspectives and integrated sustainable design solutions from the project's inception.
- **Encourage Professional Certification:** Support staff in obtaining sustainability-related accreditations and provide incentives for those who achieve certifications, recognizing their contribution to the firm's sustainability goals.
- **Promote Research and Development:** Allocate resources for sustainability research and development, encouraging team members to explore new materials, technologies, and methodologies that advance sustainable design.

- **Engage in Community and Industry Partnerships:** Actively participate in sustainability-focused organizations, forums, and networks to exchange knowledge, stay informed on industry trends, and collaborate on community projects that reinforce sustainable practices within and beyond the firm.

## 4. Data Centers

Data centers are the digital world's foundation, enabling all online interactions by supporting the vast and growing demands for data. As global internet usage has soared from 0.04% in 1990 to over 67% today, the expansion of data centers is crucial to sustain this digital era's connectivity needs. This surge necessitates increased data center capacity to support intensive operations such as video streaming, AI processing, and virtual reality. The rise of AI, in particular, has significantly boosted demand for data center resources, emphasizing the need for rapid expansion. SNHA, as one of the leading architectural firms specializing in data center design, is at the forefront of addressing this need.

It's vital that these expansions are managed in ways that reduce environmental impact, setting a new standard for achieving both enhanced connectivity and sustainability. Data centers not only facilitate seamless connections across continents—keeping families in touch amid adversities—but also ensure the reliability of digital services, underscoring the importance of their continuous and efficient operation.

1. **EUI Targets and Innovative Energy Modeling:** Guided by the 2030 Commitment, SNHA establishes Energy Use Intensity (EUI) baselines with an aim for an 80% reduction in energy use across projects, integrating cloud-based energy modeling with Revit to assess and align design decisions with sustainability goals. This innovative modeling allows for detailed input—ranging from building type and location to energy codes and building envelope specifics—enabling the team to analyze energy use reduction strategies and optimize project performance in alignment with budgetary and design objectives.
2. **Designing High-Efficiency Data Centers:** SNHA specializes in designing some of the world's most energy-efficient data centers, achieving Power Usage Effectiveness (PUE) ratings as low as 1.09. This surpasses the industry standard by approximately 30%, marking significant energy savings and reinforcing our leadership in sustainable design.
3. **Comprehensive Sustainability Integration:** By 2025, SNHA aims to incorporate energy modeling in 100% of projects, achieve major green building accreditation for 90% of our design staff, and enhance sustainability roles within our design processes. Initiatives include early design energy modeling, Life Cycle Assessments, daylight studies, and materials research.
4. **Commitment to Sustainable Materials:** Adhering to the AIA Materials Pledge, SNHA is updating its internal material library to ensure that 90% of products and materials feature Environmental Product Declarations (EPDs) and Material Ingredient Disclosures (MIDs). All vendors and manufacturers are meticulously vetted to uphold our sustainability standards.

## 5. Project Design and Delivery

SNHA's building science group, with a keen focus on sustainability, endeavors to enhance the material and energy life cycles of buildings. By critically analyzing the stages of planning, design, construction, and operation, especially in the context of data centers, we aim to implement strategies that significantly reduce environmental impacts. Recognizing the challenges of a burgeoning population in a world of finite resources, we adopt a nuanced approach to complex issues, relying on data and rigorous analysis to propose innovative solutions. We understand that even small modifications in the design of widely used building components can lead to substantial reductions in environmental footprint. Our team, leveraging its expertise in material science, energy modeling, and life cycle assessment, seeks out such opportunities for meaningful impact.

Integrating sustainability into every facet of our projects is a key goal. From the initial request for proposal (RFP) through to post-occupancy, sustainability tasks and milestones are embedded within our project design process.

- **Lifecycle Impact Reduction:** By examining the planning, design, construction, and operation phases, we implement strategies that significantly reduce environmental impacts.
- **Modular/Prefab Design:** We explore the potential for modular construction to shorten construction times and reduce waste.
- **Sustainability Milestones:** Sustainability tasks and milestones are embedded in our project design process, from RFP to post-occupancy, ensuring a consistent focus on green building practices.
- **Collaborative Innovation:** We maintain active partnerships with industry peers to share knowledge and drive collective progress toward sustainability goals.

We actively partner with industry peers, sustainability consultants, contractors, and engineers to foster a culture of knowledge-sharing and innovation. Together, we contribute to industry-wide initiatives like the MEP 2040 Challenge, underscoring our collective commitment to shaping a more sustainable future in architecture and engineering.

## 6. Corporate Reporting And ESG.

At SNHA/Woolpert, our commitment to environmental stewardship and sustainable practices is integral to our corporate identity. We understand that achieving our climate goals—aligned with the 1.5°C target by 2030 and reaching net-zero emissions by 2050—strengthens client trust and prepares us for a changing regulatory landscape. Our approach to corporate environmental reporting and ESG reflects this commitment through key actions and strategies:

- **Comprehensive Emissions Inventory:** We will conduct detailed inventories of greenhouse gas emissions, focusing on Scope 1, 2, and significant Scope 3 emissions, to inform our reduction strategies.

- **Emissions Reduction Strategies:** Strategies will be developed and refined through annual inventories to ensure progress towards our 2030 and 2050 goals.
- **Sustainable Offices:** Our urban office spaces in Chicago and London prioritize sustainability through natural lighting, energy-efficient appliances, and waste reduction measures.
- **Flexibility and Education:** We support flexible working arrangements to reduce emissions from commuting and are committed to sustainability education, targeting certifications and continuous improvement in our carbon footprint.
- **Business Case for Sustainability:** A solid business case underpins our sustainability plan, emphasizing market differentiation, corporate responsibility, client expectations, talent retention, and risk management. This framework guides our actions in workplace environment, procurement, waste management, energy, and product offerings.

Our dedicated sustainability task force drives these initiatives, defining business success and the value of sustainability outcomes. Through a clear focus on environmental reporting and ESG principles, SNHA/Woolpert is not just committed to achieving significant sustainability goals but also to contributing positively to our communities and the planet.

## 7. External Outreach

SNHA is dedicated to fostering a vibrant, sustainable community through active participation in local design and educational events, focusing on architecture and sustainability. We aim to leverage our expertise to benefit the community, mentor the next generation of professionals, and contribute to the ecological and social well-being of the areas we serve.

- **Educational Outreach:** We engage in initiatives like the Project Pipeline Summer Camp and the ACE mentor program, offering hands-on architecture and design experiences to students from diverse backgrounds. These programs empower students with skills to tackle community issues, fostering early interest in architecture and design.
- **Professional Development:** Through contributions to Arquitectos and active participation in its programs, we support the professional growth of architectural students and professionals, offering mentorship, educational talks, and resources for career advancement.
- **Sustainable Practices:** We're innovating in sustainable material reuse, repurposing material samples for community benefit, and exploring sustainable practices within our operations.
- **Community and Volunteering:** SNHA supports local communities through volunteering, charitable donations, and pro-bono work, aiming to strengthen social, economic, and ecological resilience.
- **Outreach and Engagement:** We commit to sharing our sustainability efforts with the wider community through our website, social media, and by organizing and participating in events that showcase our commitment to sustainability and community service.

Through these actions, SNHA not only contributes to the professional landscape but also reinforces our commitment to sustainability and community engagement.