

Embodied Carbon Action **Plan.**

ECAP SE 2050

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March 31, 2026

Ms. Jennifer Goupil
Managing Director
Structural Engineering Institute

RE: Letter of Commitment to the SE 2050 Program

Dear Ms. Goupil:

Klein & Hoffman, founded in 1953, and with a dedicated team of 70 employees across offices in Chicago, Philadelphia, and Milwaukee, is proud to reaffirm our commitment to the SE 2050 Program. As we work toward the collective goal of understanding, reducing, and ultimately eliminating embodied carbon by 2050, we continue to lead by example in sustainable building practices. Through the restoration, repair, and maintenance of existing structures, we actively support the transition to a Net Zero built environment.

Recognizing our responsibility to both local and global communities, we remain dedicated to advancing sustainable materials and construction methods. As part of our ongoing pledge to the SE 2050 Program, Klein & Hoffman will:

- Report our Embodied Carbon Action Plan (ECAP) and make this plan available on the SE 2050 website for public viewing.
- Contribute data for a minimum of two (2) projects to the SE 2050 project database.

Through this initiative, we aim to foster industry-wide collaboration and deepen our collective understanding of embodied carbon in structural engineering. By setting measurable targets and sharing insights, we strive to drive meaningful progress towards a more sustainable future.

We look forward to continuing our collaboration with industry leaders through the SE 2050 Program as we work together toward lasting, impactful change.

Sincerely,

Klein and Hoffman, Inc.



Terry McDonald, **SE, PE**
CEO / Principal

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Klein&**Hoffman**

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About Us

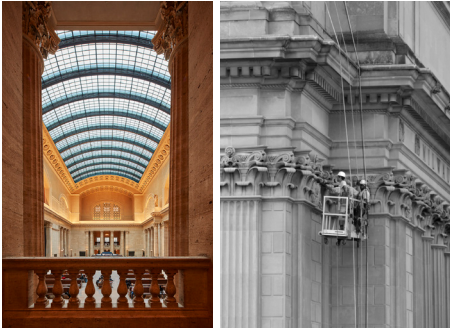
At Klein & Hoffman, we’ve built a legacy of over 70 years in structural and architecture engineering, specializing in delivering innovative and creative solutions to a variety of real estate challenges. Our expertise spans the investigation, planning, and design of structurally sound buildings, focusing on enhancing building functionality and addressing issues such as moisture infiltration, corrosion, and the need for space modernization. Our client-centric approach, a cornerstone of our operations, is evidenced by our strong portfolio of returning clients and referrals.

Collaboration is not just a practice but a core principle, deeply ingrained in our culture and reflective in our work. We engage in deep collaboration with owners, managers, developers, contractors, and design professionals to diagnose and solve building issues, ensuring that every solution is a product of collective insight and expertise.

Our Structural Engineering Group is renowned for offering straightforward yet innovative solutions to complex problems, including building design, rehabilitation, structural strengthening, and significant alterations to existing structures.

Complementing these efforts, our Architectural Engineering Group focuses on building enclosure systems for both existing constructions and new projects, leveraging our collective experience to bring valuable insights to every project. Our hands-on, practical approach to problem-solving ensures our clients have peace of mind when it comes to modernizing and managing their facilities.

At Klein & Hoffman, our executive leadership team, with its extensive technical expertise, is passionate about delivering efficient, innovative, and creative solutions, ensuring that an exceptional client experience is at the core of everything we do.



Our Team



Terry McDonald, SE, PE
CEO / Principal



Allysia Youngquist, RA
President / Principal



Bill Ipema, SE, PE
Associate Principal



Nathan Barry, PE
Associate IV
Embodied Carbon Champion



Robert Lau, PE
Senior Associate II



Education

Klein & Hoffman actively promotes continued education in sustainability and carbon reduction strategies. It is an encouraged topic in our weekly ‘Tool Time’ presentations, a 5-to-10-minute presentation that allow individuals the opportunity to share technological advancement in materials, new LCA tools and software, and regional examples of reduction strategy.

By incorporating sustainability education into our daily practice, we empower all Klein & Hoffman employees to think critically and make environmentally responsible choices.

Checklist:

- ☒ Distribute firm-wide announcement of Klein & Hoffman’s pledge to join the SE 2050 Commitment.
- ☒ Present “Embodied Carbon 101”. To be presented during a Klein & Hoffman technical session by March 2024.
- ☒ Have a Klein & Hoffman representative attend quarterly external education programs provided by SE 2050, the Carbon Leadership Forum, or other embodied carbon resources.
- ☒ Share the SE 2050 Library of resources with our technical staff and through our firm intranet.
- ☒ Attend information sessions on LCA-based tools used to calculate embodied carbon.
- ☒ Participate in the DVASE Sustainability Committee monthly meetings to compare lessons learned from other local companies, learn about local suppliers, and updated local policies.
- ☐ Initiate an embodied carbon interest group within Klein & Hoffman and provide a narrative of our goals.

Reporting

Klein & Hoffman is committed to reporting the required (2) projects in our second year as a signatory firm. We will perform LCAs on the renovation and reuse of existing structures to determine the embodied carbon impacts of salvaging the existing structure in comparison to building new.

Checklist:

- ☒ Submit a minimum of (2) projects per U.S. office with structural engineering services to the SE 2050 Database.
- ☐ Compare the embodied carbon emissions from multiple projects across the firm. Analyze and document what data or pieces of information are most important and communicate findings to the firm.
- ☐ Utilizing the Carbon Avoided Retrofit Estimator (CARE), determine the carbon saved through a minimum of (2) building retrofit projects.

Reduction Strategy

As a second-year signatory firm, education of the Klein & Hoffman staff will be the primary focus throughout the year. Quarterly meetings, technical seminars, and sustainable material representatives will be utilized to incorporate sustainable building practices into the fabric of our design process.

Checklist:

- Revise concrete specifications to include performance-based concrete mix designs that incorporate embodied carbon performance requirements as recommended by NCSEA.
- Choose a minimum of (1) project and analyze a minimum of (2) design options and the carbon impact of each option.

Advocacy

Klein & Hoffman encourage all employees to get involved with educational communities such as the Carbon Leadership Forum and other chapters of national organizations and their sustainability committees. As our knowledge base grows, we intend to use it to encourage sustainable design and construction solutions.

Checklist:

- ✓ ■ Share Klein and Hoffman’s commitment to SE 2050 on our company website.
- Have discussions with our clients regarding sustainability and the importance of the SE 2050 commitment.
- All new proposals will include language informing clients that Klein & Hoffman is a signatory firm of the SE 2050 commitment.

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