

SE 2050 ECAP Submission Form (No PDF)

Email *

crice@bennett-pless.com

Firm Name *

Bennett & Pless

Education

The first step to increased engagement within your firm is through education. We all should strive to understand the impacts of our design decisions and their effects on our environment.

Distribute firm-wide announcement of your firm's pledge to join the SE 2050 Commitment. *



Completed



Not Completed

Provide a brief narrative describing how your firm is promoting a firm-wide education program for embodied carbon reduction and the firm's commitment to SE 2050. *

Our firm has taken a phased approach to building internal awareness around embodied carbon. We have incorporated embodied carbon fundamentals into our internal training program, including an "Embodied Carbon 101" session that is now part of onboarding for new technical staff. Last year, we presented to the entire firm on sustainable design strategies and updated specifications for concrete and steel.

In addition, we have provided training on available tools and workflows, including the use of LCA-based software such as Tally, to help engineers understand how to quantify and evaluate embodied carbon in their projects quickly and confidently.

We have also participated in key learning opportunities, including the SEI SE2050 Signatory Summit in June 2025, and shared takeaways internally to reinforce and improve our current processes and strategies.

Name of Embodied Carbon Champion (Point Person) *

Corey Rice

Email of Embodied Carbon Champion *

crice@bennett-pless.com

Phone number of Embodied Carbon Champion *

919.516.9481

LinkedIn URL

<https://www.linkedin.com/company/bennett-&-pless-inc/>

Set a date within the first year to present the “Embodied Carbon 101” Webinar to your firm. *
Incorporate this information into your orientation/on-boarding programs.

- ☒ Committed / Completed
- ☐ Not Committed / Not Completed

Minimum (1) additional elective to educate your firm about embodied carbon and a narrative of its significance. *

- ☒ Committed / Completed
- ☐ Not Committed / Not Completed

ELECTIVES (Min. (1) required, recommended to achieve (4) per year): *

- ☐ Have one representative of your firm (any employee) attend quarterly external education programs (e.g. webinar, workshop) provided by SE 2050, Carbon Leadership Forum (CLF), or other embodied carbon resources.
- ☐ Share the SE 2050 library of resources with technical staff.
- ☐ Share embodied carbon reduction strategies with your firm as outlined in Top 10 Carbon Reducing Actions for Structural Engineers document produced by SE 2050.
- ☐ Nominate a minimum of (1) employee per office to participate in a CLF Community Hub.
- ☒ Provide narrative outlining plans for minimum (2) firm-wide presentations per year on the topic of embodied carbon
- ☐ Present the document, "How to measure and report embodied carbon" to all technical staff.
- ☒ Attend a presentation or demo of an LCA-based tool used to calculate embodied carbon.
- ☒ Initiate an embodied carbon interest group within your firm and provide a narrative of their goals.
- ☐ Provide a narrative of how the Embodied Carbon Reduction Champion will engage embodied carbon reduction at each office. (intended for multi-office firms)
- ☐ Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Firm-wide Presentations:

As we previously presented on material-specific embodied carbon reduction strategies for concrete and steel separately, our plan for the upcoming year is to build on that foundation. We are planning additional firm-wide presentations focused on performing LCAs using Tally and material-specific embodied carbon reduction strategies for timber.

LCA-based tool demo:

Our embodied carbon champion has attended several demos of different LCA-based tools as we continue to learn more about the capabilities of Tally. This has helped us better understand the strengths and limitations of different software and evaluate whether any adjustments are needed to our current tracking process.

Interest group:

We have established an internal SE 2050 committee that serves as the embodied carbon interest group within our firm. The goal of this group is to develop consistent LCA workflows and apply them across our past project database to establish an internal baseline. This group also acts as a resource for all offices, supporting project teams and helping answer questions as embodied carbon considerations become more integrated into our design processes.

Reporting

Quality data is essential to making informed decisions and setting important benchmarks and the development of appropriate embodied carbon reduction targets. The SE 2050 database is a central component to building a successful Commitment Program and reaching our collective embodied carbon reduction goals by 2050.

Submit an annual minimum of (2) projects per U.S structural office or (5) total projects for the firm to the SE 2050 Database. *

- ☒ Completed
- ☐ Committed and on track
- ☐ Need help reaching this target
- ☐ Not Completed

Number of Projects Reported Last Year (zero in first year)

5

Number of Offices Reporting Last Year (zero in first year)

2

Provide a narrative on how your firm plans to measure, track, and report embodied carbon data. *

We are currently using Tally as our primary tool to measure and track embodied carbon across our past project database. As we've worked through this process, we've recognized the need to validate those results, so we've started using EC3 to compare outputs and better understand where adjustments may be needed. We have not yet made those adjustments but plan to perform this comparison more extensively in the coming year.

With the new SMQ requirements, we have also shifted toward extracting more element-based quantity data directly from our models, specifically working to distinguish between lateral and gravity elements and better quantify reinforcing within those systems. The goal is to better align with the SE 2050 database structure and streamline future reporting.

Describe the internal training for embodied carbon measurement you provided or will provide. *

As we developed our standard operating procedure (SOP), we recognized quickly the need for consistent assumptions across the firm, especially as we continue to grow and integrate new offices where modeling practices and workflows may differ. This is our first year applying the SOP across offices, and it has been a learning process as we continue to build and improve it.

Outside of the SOP, our training on Tally has primarily been through one-on-one sessions, allowing for more direct support as teams begin using the software on active projects. We are planning to develop a more formal internal presentation that walks through an example LCA using Tally, with the intent of incorporating this into onboarding for new staff. We also currently only hold one license to Tally. Our plan is to increase our licenses as more engineers begin to use the software in projects.

Finally, our embodied carbon interest group serves as an internal resource for questions and support, helping project teams work through challenges as they apply LCA workflows in practice.

ELECTIVES (Not required, recommended to achieve (1) per year):

- ☐ Submit all projects to the SE 2050 Database
- ☐ Meet your target average embodied carbon reduction from the previous year.
- ☐ Report a greater percentage of projects than the preceding year.
- ☐ For a project submitted to the database, ask the Architect or Owner if the project has a carbon budget or if there are established project sustainability goals at the project kickoff meeting.
- ☐ Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

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Embodied Carbon Reduction Strategies

Embodied carbon reduction of structural materials is the ultimate goal of the SE 2050 program. As a starting point, you will have access to the SE 2050 project database and Program resources to identify and set strategies. This section also serves to share lessons learned and incite innovation. Demonstrate leadership by not only applying, but developing best practices and actively collaborating with the design community. This is our profession's opportunity to take action and make an impact.

Set an EC reduction goal for the coming year and an implementation narrative (Qualitative goals focused on education are appropriate for the first year) *

We are still targeting an initial 2-4% reduction goal for embodied carbon for the coming year as we are still continuing to build and refine our internal baseline. At this stage, we are focusing on improving consistency on how we measure embodied carbon and how embodied carbon is evaluated rather than setting aggressive reduction targets.

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For second year's ECAP and beyond, provide a narrative about what you have learned about embodied carbon reduction in the past year. Describe successes and misses to help the program improve.

Over the past year, we've learned that early engagement is critical if embodied carbon is going to meaningfully influence project decisions. On the project where we were able to evaluate different structural options during conceptual design, we had the best opportunity to bring embodied carbon into the conversation. However, we also saw that cost continues to be the primary driver in system selection, and in many cases, decisions are made after our initial embodied carbon discussion that are outside of control. One of the main challenges has been tying embodied carbon discussions to cost in a way that resonates with clients and contractors. While we believe there are opportunities to align carbon reduction with efficient material use, those connections are not always clear during pricing exercises. Overall, this past year has reinforced that embodied carbon reduction is not just a technical exercise, but an early coordination effort across the entire project team.

Minimum (1) additional elective to educate your firm about embodied carbon and a narrative of its significance. *

- ☒ Committed / Completed
- ☐ Not Committed / Not Completed

ELECTIVES (Min. (1) required, recommended to achieve (4) per year): *

- ☐ Incorporate data visualization into your ECAP. How are you looking at data to make informed design decisions and communicate design options to your clients?
- ☐ Provide a project case study in your ECAP that captures a reduction of embodied carbon or some lessons learned.
- ☐ Create a project-specific embodied carbon reduction plan.
- ☒ Complete a system embodied carbon design comparison study during the project concept phase.
- ☐ Participate in a project LEED design charrette and speak to potential design considerations impacting embodied carbon.
- ☐ Calculate your firm average benchmark for embodied carbon.
- ☒ Update your specifications and incorporate embodied carbon performance. Include embodied carbon in your submittal review requirements.
- ☐ Collaborate with your concrete supplier to reduce embodied carbon in a mix design.
- ☐ Work with a contractor during material procurement to meet an embodied carbon performance criteria on at least (1) project.
- ☐ Have an Environmental Product Declaration (EPD) created as a result of a project.
- ☐ Incorporate biogenic materials on at least one project annually.
- ☐ Provide a narrative of how circular economy has been used on your projects. Incorporate re-use or design for deconstruction into at least one project.
- ☐ Quantify construction waste reduction on a project and the impact to embodied carbon.
- ☐ Integrate embodied carbon mitigation strategies in your General Notes.
- ☐ Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Design Comparison:

We were able to compare different design options during the conceptual phase for a mixed-use/multifamily project using embodied carbon as a performance metric. While we are still awaiting final structural system selection, we have learned that cost continues to be the primary driver in these decisions, with the contractor having significant influence over the final system selection. We have remained engaged in these discussions by communicating how each option affects embodied carbon to the design team. At the same time, we recognize the importance of budget constraints and are committed to reducing embodied carbon as much as possible within the selected system.

Update specification:

We updated our specifications for steel and concrete to require EPDs and begin setting reduction goals. We are also encouraging all engineers to incorporate these updates into standard specifications for new projects.

Advocacy

True change can only come with industry-wide adoption. This section recognizes that our impact reaches beyond any one firm. Plan opportunities to share your experience and knowledge within your firm, with your design community, and beyond. Host a webinar or lunch 'n learn, attend a conference, connect with the SEI Sustainability Committee, or reach out to manufacturers and policy-makers.

Provide a narrative about how you plan to share knowledge and data to accelerate adoption of embodied carbon reduction. *

Our approach to sharing knowledge has been focused mostly on internal communication this past year. We continue to share updates through company-wide meetings, as well as presentations on embodied carbon reduction strategies for concrete and steel. We believe that this will help all of our team develop that solid foundation of information to discuss embodied carbon reduction strategies with clients, externally.

Looking ahead, we are working to develop our internal Embodied Carbon Dashboard on our network where employees can track overall embodied carbon progress relative to our goals. This is intended to improve visibility of our growing embodied carbon data and keep teams aligned on our results as we continue to build our dataset.

Externally, we continue to encourage our team to participate in professional organizations and committees related to sustainability. We see this as a practical way to both share our progress and learn from others' experiences.

Describe the value of SE 2050 to clients. How can we collaborate to drive adoption? At your option, attach any associated marketing materials. *

SE2050 provides a consistent framework for understanding and discussing embodied carbon across the design and construction team. For clients, this brings more clarity to how structural system choices and material selections impact overall project carbon and provides a more structured way to evaluate those decisions during design. Clients can also have more confidence that committed firms are using shared resources and consistent processes to measure and reduce embodied carbon.

In terms of collaboration to driving SE2050 adoption, the standardization of embodied carbon measurement has been one of the most important steps, that we have seen, in helping newer firms get involved. Without that, it is difficult to know where to start and where to go, especially when more established firms appear to have more developed workflows and support. Continued opportunities for open knowledge sharing would help bridge that gap. For example, an active forum, possible hosted on SE2050's website, would help in discussing active challenges and lessons learned to help newly committed firms work through roadblocks and continue moving forward.

We have also found that simply having conversations about SE2050 with peers and project partners is an important part of advocacy. We have experienced some cases where firms and clients are either not familiar with the program or just have general understanding of it. By continuing to give presentations where possible about SE2050 and how it applies to our industry, easily helps raise awareness and support broader adoption.

Optional: Upload any documents you would like to exhibit.

 Add file

Declare your firm as a member of the SE 2050 commitment on boilerplate proposal language. *

- ☒ Committed / Completed
- ☐ Not Committed / Not Completed

ELECTIVES (Not required, recommended to achieve (2) per year):

- ☒ Share your commitment to SE 2050 on your company website
- ☐ Give an external presentation on embodied carbon that demonstrates a project success or lessons learned (Tip: Get connected at a CLF local hub near you!)
- ☐ Discuss with the Owner / Client the option of requiring that some of the structural materials come with facility-specific or product-specific EPDs
- ☐ Share education opportunities with clients
- ☐ Provide a narrative of how you have encouraged industry and policy change incentivizing availability of low-carbon and carbon sequestration materials
- ☐ Start an embodied carbon community of practice or mentorship program in your office
- ☐ Mentor a firm new to the embodied carbon space
- ☒ Other action you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Website:

<https://www.bennett-pless.com/se-2050/>

External presentations for advocacy:

Our embodied carbon champion has given two external presentations on embodied carbon and what it means for structural engineers. The content of these presentations was similar to the Embodied Carbon 101 material developed by NCSEA. One presentation was given at the SEA of NC State Conference in September 2025, and the other was presented to the SEA of NC Triangle Chapter in November 2025. The goal of these presentations was to introduce embodied carbon, discuss reduction strategies and goals, and explain what SE 2050 is to help drive awareness and adoption within our industry.

Future advocacy:

We are planning to join a regional CLF hub in the coming months and look forward to contributing to that group and continuing to stay engaged with ongoing industry efforts.

Program Feedback

Please add any comments that you wish to share publicly. The Program Leadership Group is committed to

transparently improving SE 2050.

Comments:

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