

SE 2050
EMBODIED
CARBON ACTION
PLAN

2025



WHO WE ARE

"We support the vision that all structural engineers shall understand, reduce, and ultimately eliminate embodied carbon in their projects by 2050."

- Ruben Martinez, P.E., S.E.

MARTINEZ MOORE ENGINEERS, LLC is a Texas-based multi-discipline engineering firm with offices in Austin, Houston, Dallas, and Fort Worth, and is certified by the State of Texas as a Historically Underutilized Business (HUB). We are an affiliate firm of Martinez Engineering, LLC and Walter P Moore and Associates, Inc.

Through our partnership with Walter P Moore, we bring together an unparalleled team of experienced structural and civil engineers as well as parking and building enclosure consultants. We engineer cost- and resource-efficient, forward-thinking solutions, which help support and shape our communities.



President

Ruben Martinez, P.E., S.E.

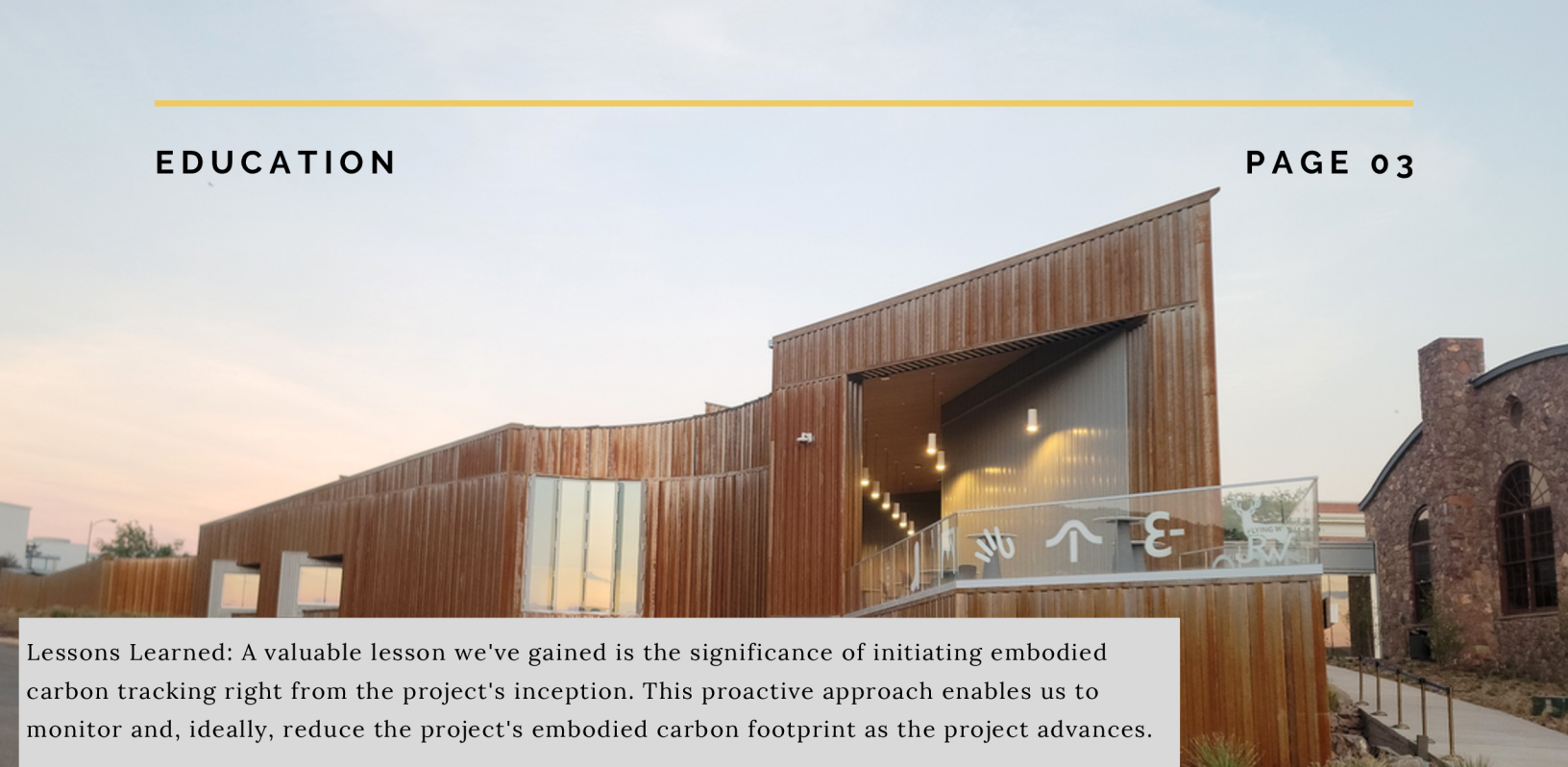
EMBODIED CARBON CHAMPIONS



Priscilla Nguyen, P.E., S.E.
LEED Green Associate



Xhoja Joseph, E.I.T.



Lessons Learned: A valuable lesson we've gained is the significance of initiating embodied carbon tracking right from the project's inception. This proactive approach enables us to monitor and, ideally, reduce the project's embodied carbon footprint as the project advances.

CONTINUING EDUCATION

1) Provide a narrative of how the embodied carbon champion will engage embodied carbon reduction at each office.

We are making sure our engineers have plenty of opportunities to attend the various trainings and seminars happening throughout the year, which include demos of available material quantity tracking tools. We have also encouraged colleagues to watch recordings of these webinars as well as webinars hosted by organizations in our industry.

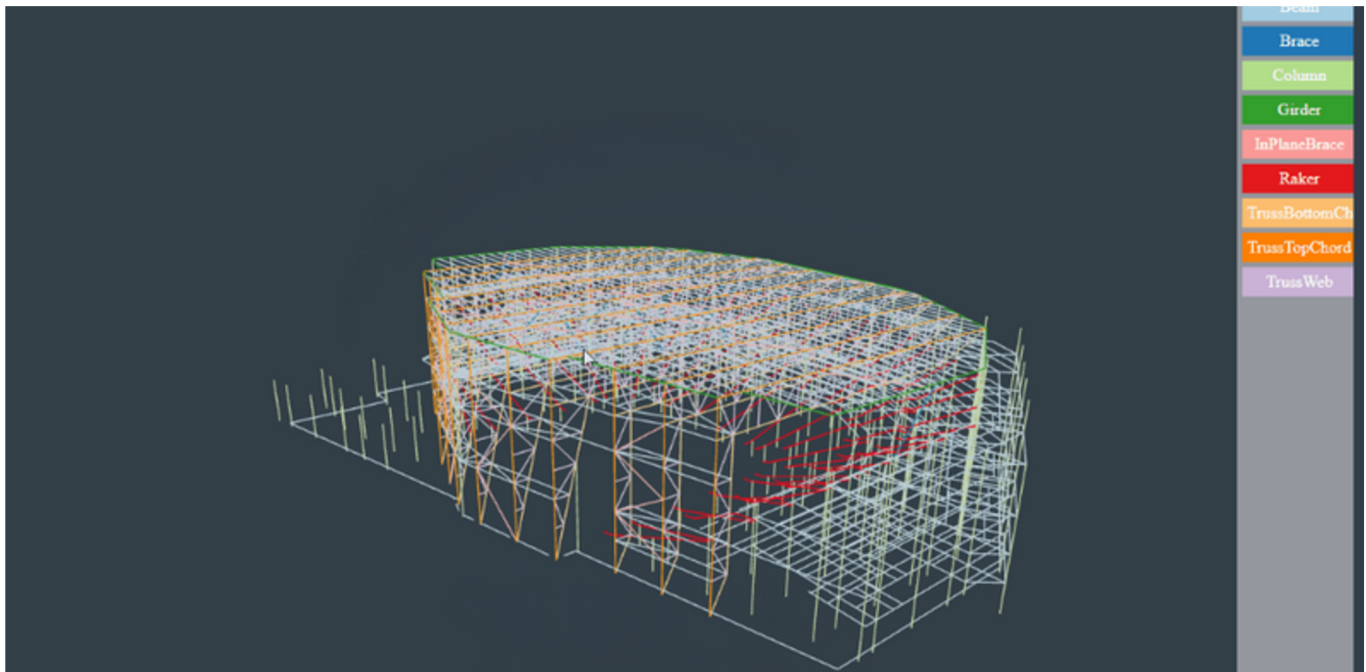
2) Present at least (1) webinar focused on embodied carbon and make a recording available to employees: Two of the structural group-wide biweekly educational seminars focused on embodied carbon topics. The first webinar covered the basics of embodied carbon tracking and reduction using tools developed in-house. The second webinar covered performance-based concrete specifications, particularly on reducing GWP of our mix designs. Strategies discussed included collaborating with local aggregate and ready mix suppliers in limiting GWP.

3) Engage with NCSEA's Sustainable Design Committee: One of our Embodied Carbon Champions has attended the SDC's monthly meetings and has helped write monthly blurbs sharing the latest news on sustainability and embodied carbon as part of NCSEA's newsletter with national reach. Additionally, after attending two sustainable design-related sessions (Climate Action Summit and Design Criteria & Design Constraints for Sustainability & Embodied Carbon) at the 2024 NCSEA Summit, she shared findings and main discussion points with the firm at large.

HOW WE MEASURE

1) Submit a minimum of 2 projects per US office (maximum of 5 total across firm):

Last year, we submitted five projects to the SE2050 database. In line with our ongoing commitment, we are maintaining this momentum by submitting another five projects this March.



REDUCTION STRATEGIES

HOW WE ARE TRACKING

1) Set clearly stated, firm-wide reduction targets in the short-term (<1 year) and long-term (>5 years).

Our firm's short-term reduction target is to, on average, reduce the embodied carbon intensity of new design projects by 5% on a square footage basis, compared to last year's average for similar project types or baseline building.

Our firm's long-term reduction target is to, on average, reduce the embodied carbon intensity of new design projects by 10% on a square footage basis, compared to the preceding five years' average for similar project types or baseline building.

PROJECT HIGHLIGHT

Phase 1 of the Texas Medical Center Parcel D building in Houston, Texas highlights the sustainability-focused ideals we hold at MME. This 830,000+ square foot office and laboratory building with underground parking was designed with end users in mind. The 12-story building was certified LEED Gold last summer. As a LEED certified project, this building emphasizes the importance of health and wellness of the users and creates a connection to the green spaces outside of the building. A few of the strategies the design team implemented were life-cycle assessments and sustainability-focused material specifications as well as material quantity tracking to achieve the LEED Gold certification.



TMC3 Parcel D Phase 1, Houston, TX



MME & SE2050

At MME, our commitment remains steadfast in fostering ongoing communication with both project owners and contractors. Our long-term goals include working closer with contractors and material suppliers on how we can further reduce embodied carbon in the construction stage. This may be by requiring Environmental Product Declarations or taking a closer look at concrete mix designs. Whenever possible, we collaborate with our architect clients to understand each individual project's sustainability goals and underline the importance that embodied carbon reduction plays in those goals. We leverage material tracking tools to assist with visualizing material usage across various design phases and to make informed decisions. We have consistently showcased our dedication to sustainable design on our website, and we are actively seeking additional avenues to effectively promote our pledge such as participating in NCSEA's national Sustainable Design Committee.

Looking forward, our strategy entails hosting an expanded series of seminars, developing a wider range of tools, and striving for an overall enhanced proficiency in managing embodied carbon within our projects.

