

2023

# EMBODIED CARBON ACTION PLAN

# EDUCATION

Ai-Alt is committed to promote the vision and principles of SE2050 by educating the staff about the impact of this movement. We were able to incorporate sustainable design practices in our projects for the previous year and will still uphold this advocacy in our future and upcoming contracts and negotiations.

Education is the primary key in our effort towards the promotion of Sustainable Design. We disseminate the vision of the movement by continuously educating our employees through the exchange of ideas during our team meetings, and the provision of a library of SE 2050 materials and other sustainability resources that everyone can easily access or use as references for the firm's projects.

## ECAP CHAMPION CONTACT DETAILS

Danielin T. Dico

+63 032 415 1481

[ddico@ai-alt.com](mailto:ddico@ai-alt.com)

[www.ai-alt.com](http://www.ai-alt.com)

# REPORTING

Our process begins with the creation of a scheme or a preliminary structural design. Subsequently, we generate initial material take-offs and schedules to quantify the building materials and components and then manually input the data in the EC3 Building Transparency website. From there, we establish the project specific GWP reduction target and select the appropriate EPDs for every category. The generated result of the original design will be used in the team's discussion to further enhance the schematic and improve the selection and assessment of the project's building materials.

# 2023 Embodied Carbon Action Plan

## education

- ✓ Distribute firm-wide announcement of Ai-Alt's SE 2050 Commitment as a signatory firm.
- ✓ Provide a brief narrative describing how Ai-Alt promotes a firm-wide education program for embodied carbon reduction and commitment to SE 2050.
- ✓ Nominate Ai-Alt's Embodied Carbon Reduction Champion.
- ✓ Present "Embodied Carbon 101" webinar to all Ai-Alt employees and incorporate this information during orientation/ on-boarding programs.
- ✓ Share the SE 2050 library of resources with Ai-Alt technical staff.

## reporting

- ✓ Provide a narrative on how Ai-Alt measures, tracks, and reports embodied carbon data.
- ✓ Describe the internal training for embodied carbon measurement Ai-Alt provides.
- ✓ Submit an annual minimum of 2 projects by Ai-Alt to SE 2050 Database.

## reduction strategies

- ✓ For 2<sup>nd</sup> year's ECAP and beyond, describe Ai-Alt's successes and misses to help the program improve.
- ✓ For 2<sup>nd</sup> year's ECAP and beyond, provide a narrative on Ai-Alt's learnings about embodied carbon reduction in the past year.
- ✓ Incorporate biogenic materials on at least one project annually.

## advocacy

- ✓ Provide a narrative on how Ai-Alt shares knowledge and data to accelerate adoption of embodied carbon reduction.
- ✓ Describe the value of SE 2050 to clients.
- ✓ Declare Ai-Alt as a member of the SE 2050 commitment on boilerplate proposal language.

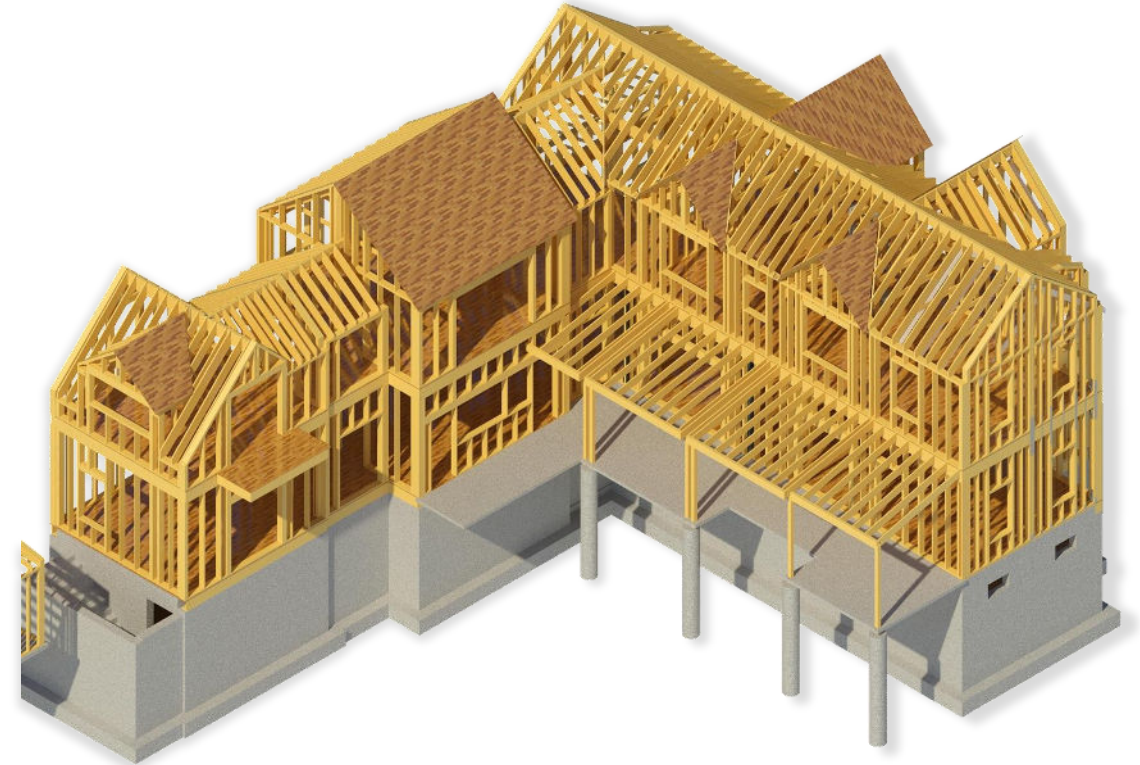
# REDUCTION STRATEGIES

## Lessons learned

Our primary goal for the past year was to learn how to use the readily available LCA tools specifically EC3 and start integrating them in our projects. The following are our realizations:

- It is necessary to consider the Carbon footprint of a structural design even during the project's preliminary planning stage.
- Reliable sources of EPDs and Carbon emission data are to be given importance since they are the main factors that determine the total Global Warming Potential (GWP) of the project.
- Working together with clients and building component suppliers is beneficial to the goal of promulgating the Net Zero Carbon advocacy especially when considering material and specification alternatives.
- Concrete is a major contributor of Carbon emissions in our environment. It is also one of the fundamental concerns in defining strategies for a Net Zero Carbon project.

For the past year, Ai-Alt began incorporating SE 2050's goal of working towards a Net Zero Structural Embodied Carbon community. One of our projects had a significant reduction of around 50% for the total building's embodied Carbon compared to the 2021 CLF Baseline as programmed in the EC3 website. By properly weighing-in material options, performance specifications and reconsidering structural designs, the team was able to drop the embodied Carbon of our wooden building components by 19% and our steel framework by around 30%.



# ADVOCACY

We have announced our pledge for SE 2050 in our company's website and started offering Energy compliance related services to our clients. We aim to maintain this pursuit towards Sustainable Design in the coming years through continuous education of our employees, distribution of marketing materials, active conversation with suppliers and clients for potential Carbon reduction opportunities, and the meticulous integration of biogenic materials in our structural designs.

As advocates of the movement, our mission for self-improvement also continues. We strive to further enhance our knowledge through research on LCA tools, Carbon diminution methodologies, and other available sustainability software and equipment that could aid us in identifying adversities and developing our current strategies.

