



## **EMBODIED CARBON ACTION PLAN**

SE 2050 | 2025



**STEVE METZGER**

CEO

S E 2 0 5 0

## A FEW WORDS FROM OUR CEO

LaBella is proud of its impact as a corporate citizen.

Throughout our history, the success of our company can be traced back to our core values: Honesty and Integrity, Stewardship of Resources, Employee Leadership at all Levels, and Seeking Growth and Embracing Change.

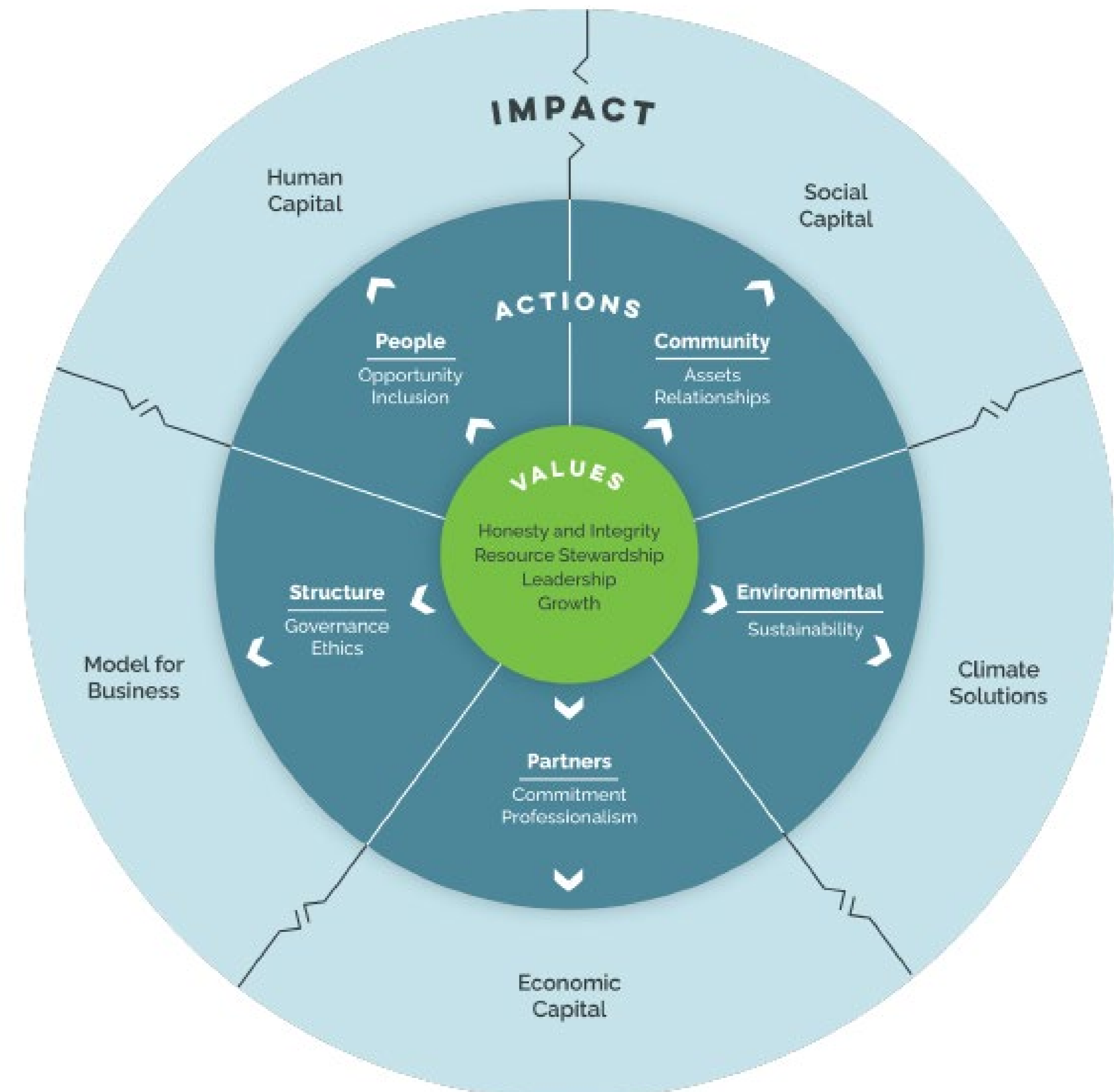
These values guide our decisions and actions, resulting in positive impacts.

SE 2050

# EXECUTIVE SUMMARY

LaBella Associates, D.P.C. is committed to achieving net-zero embodied carbon in all structural systems by 2050 as part of the SE 2050 initiative. This Embodied Carbon Action Plan outlines our comprehensive and detailed strategy to educate our teams, report project emissions, implement actionable reduction strategies, and advocate for industry-wide transformation.

By engaging in these critical steps, we aim to redefine the built environment's impact on our planet and lead the way toward a sustainable future that benefits current and future generations. Through this multi-faceted approach, LaBella Associates aims to inspire confidence and collaboration, ensuring that each project serves as a benchmark for environmental responsibility.





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# MEET OUR TEAM



**Greg Senecal, CHMM**

EXECUTIVE DIRECTOR OF CLIMATE & ENVIRONMENT



**Steve Longway, PE**

DIRECTOR OF BUILDINGS ENGINEERING



**Andy Karlson, PE**

STRUCTURAL DISCIPLINE LEADER



**Kevin DeRoller, PE**

EMBODIED CARBON CHAMPION



**Matthew McCarty, PE**

STRUCTURAL TEAM LEADER



**Lanson Cosh, PE**

STRUCTURAL TEAM LEADER



**Dan Hill, PE**

SOUTHEAST REGIONAL LEADER

SE 2050

# OUR COMMITMENT

Internal Announcement  
to our employees



We are excited to share that LaBella has officially joined the **SE 2050 Commitment Program**, a nationwide effort led by the Structural Engineering Institute (SEI) to achieve net zero embodied carbon in structural systems by the year 2050.

This step reflects our continued dedication to sustainability, innovation, and leadership in reducing the environmental impact of our work. As signatories, we are committing to:

- Tracking and reporting embodied carbon in our structural projects,
- Learning and sharing best practices to reduce embodied carbon,
- Collaborating with clients and industry partners on low-carbon solutions,
- And developing an Embodied Carbon Action Plan (ECAP) to guide our efforts.

Joining SE 2050 aligns with our mission and is a big step forward in our journey to design smarter, more sustainable buildings and infrastructure. It's also a chance for us to lead by example and help shape a better future for the built environment. We're proud to be part of a growing community of structural engineers who are driving change and taking responsibility for the future of our planet.

We look forward to sharing more updates as we implement our Action Plan and collaborate across teams to meet our goals. If you're interested in learning more or getting involved, please reach out to [@Kevin DeRoller](#), our Embodied Carbon Champion.



April 1, 2024

To Whom It May Concern:

LaBella Associates, DPC requests to be included in the SE 2050 Commitment Program. We are actively involved with ASCE, SEI and AISC among others. We fully understand achieving zero net carbon structures by 2050, and in fact are incorporating that practice as much as possible now, with New York State initiatives.

We will provide our documents and specifications around establishing an embodied carbon action plan and life cycle assessment knowing that our goals are to pursue low carbon design, material specs, and incorporate methods much like we do now for concrete design.

We believe this where the industry is heading, and we are on board. We are committed to this goal and hope to attain recognition in doing so in the industry.

If you should have any additional questions about this commitment, please contact me at (585) 295-6666.

Respectfully submitted,  
**LaBella Associates**

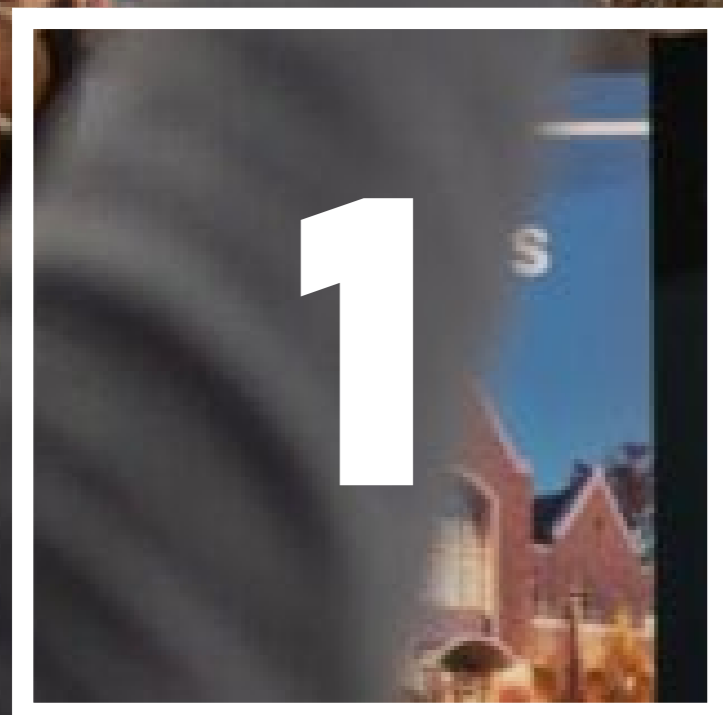
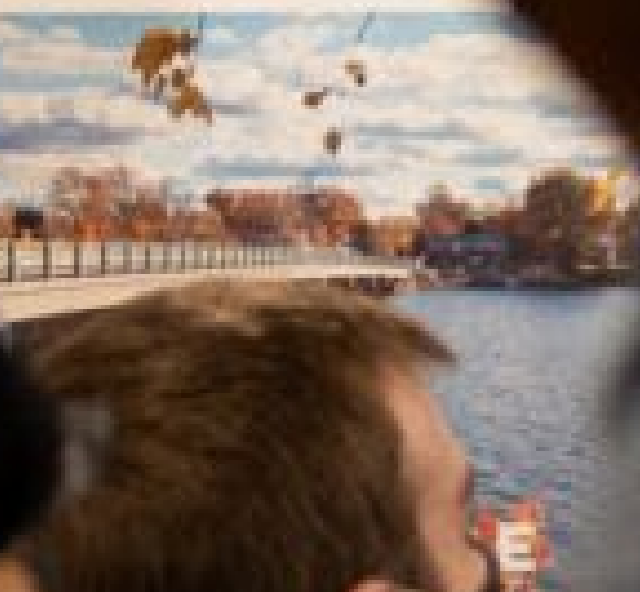
A handwritten signature in black ink that reads 'Kevin R. DeRoller, P.E.'.

Kevin DeRoller, PE  
Senior Structural Engineer

Cc: Andrew Karlson, P.E.

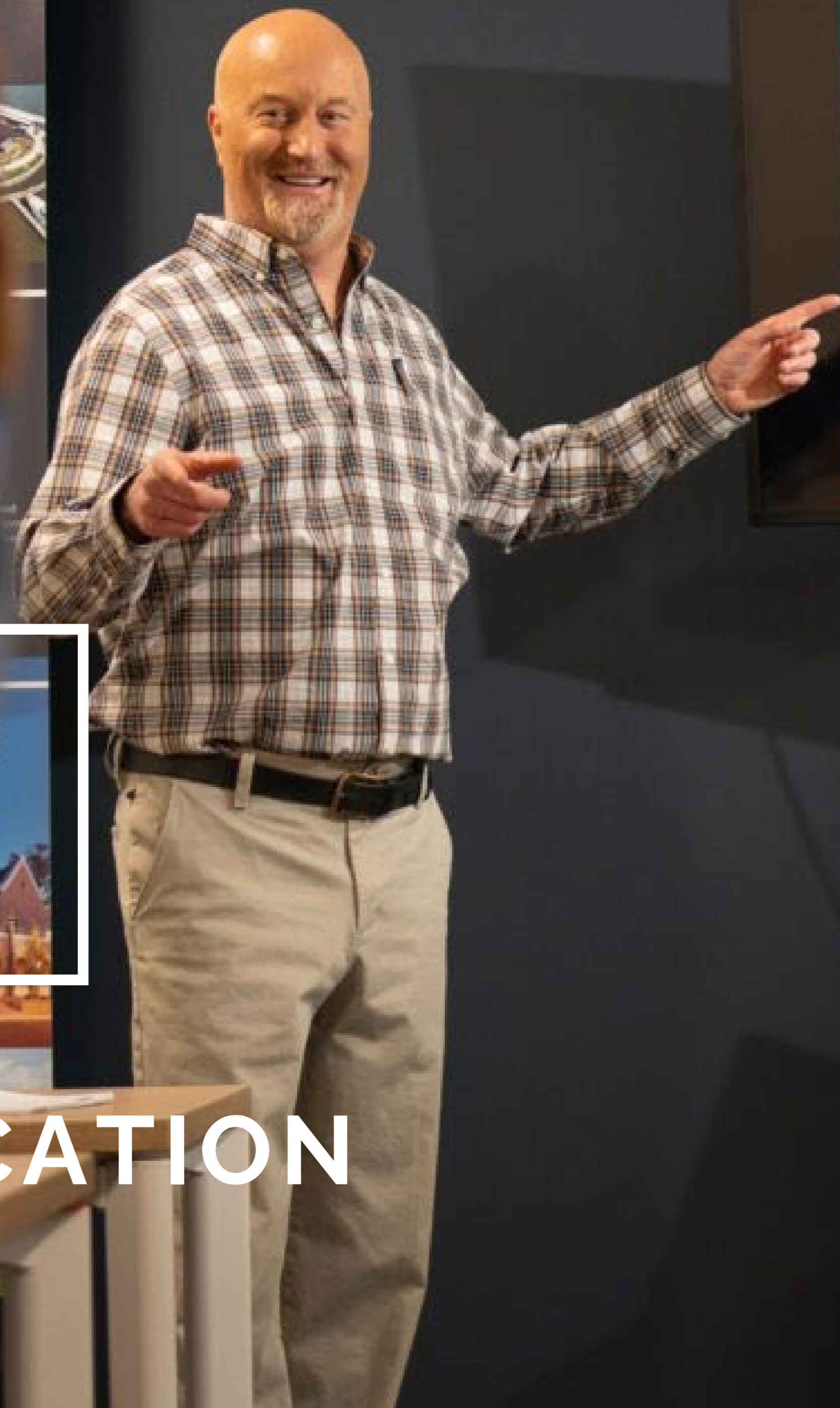
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[www.labellapc.com](http://www.labellapc.com)



SE 2050

EDUCATION



## Permit-Required Confined Spaces

Permit-required spaces are confined spaces that are hazardous to enter unless special precautions are taken. A permit-required confined space has one or more of the following characteristics:

- (1) Contains or has the potential to contain hazardous atmospheres;
- (2) Contains a material that has the potential for engulfing an entrant;
- (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross area; or
- (4) Contains any other recognized serious safety or health hazards.





## OBJECTIVE

Equip our employees, collaborators, and stakeholders with the necessary expertise, tools, and insights to understand, measure, and effectively reduce embodied carbon emissions.



S E 2 0 5 0 | E D U C A T I O N

## INTERNAL TRAINING & WEBINARS

- Develop a series of interactive webinars and lunch-and-learn sessions that explain the fundamentals of embodied carbon, sustainable material selection, and best practices in structural design.
- Record and archive all sessions on our internal resource hub for on-demand access by all staff, including new hires.

## INTRANET & NEWSLETTER COMMUNICATION

- Establish a dedicated section on our intranet featuring an evolving library of educational materials—including case studies, technical guides, and updated industry research.

## ONBOARDING & CONTINUOUS LEARNING

- Integrate embodied carbon concepts into our new employee orientation program.
- Designate an Embodied Carbon Reduction Champion in each region to lead discussions, provide ongoing support, and coordinate firm-wide educational events.

2

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# KNOWLEDGE SHARING





## OBJECTIVE

Communicate our progress, share lessons learned, and inspire change both within our client base and the broader design community.



S E 2 0 5 0 | K N O W L E D G E S H A R I N G

## DIGITAL CONTENT & CASE STUDIES

- Develop and regularly update dedicated sections on our website and social media channels that showcase project successes, technical lessons, and evolving best practices.
- Publish written case studies and visual reports that explain how design choices have led to significant embodied carbon reductions, with supporting data and client testimonials.

## CLIENT & COMMUNITY OUTREACH

- Engage clients with tailored presentations that demonstrate the value of incorporating embodied carbon reduction strategies into their projects.
- Collaborate with industry partners and advocacy groups to drive wider adoption of sustainable practices through joint marketing materials and co-hosted events.



3

SE 2050

REDUCTION STRATEGY



## OBJECTIVE

Establish clear, measurable goals for reducing embodied carbon in our projects, both in the short-term and over the long term.

## SE 2050 | REDUCTION STRATEGY

### SHORT-TERM GOALS (<1 YEAR)

#### PROJECT ASSESSMENT

- Measure embodied carbon for at least 50% of qualifying structural design and renovation projects.
- Implement a pilot program using LCA tools to benchmark the embodied carbon intensity of current projects.

#### PROCESS INTEGRATION

- Update design specification templates to require Environmental Product Declarations (EPDs) for key structural materials.
- Integrate embodied carbon tracking into our standard basis-of-design documents.

### LONG-TERM GOALS (5+ YEARS)

#### TARGETED REDUCTIONS

- Aim to reduce the average embodied carbon intensity across our project portfolio by 30% by 2030.
- Commit to a long-term vision of net zero embodied carbon for all new project designs by 2050.

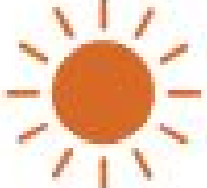
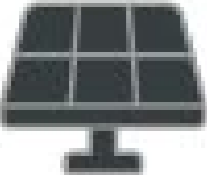


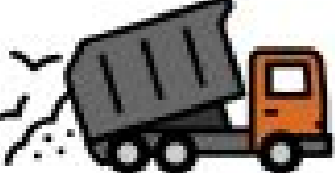
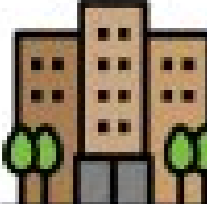


#### STRATEGIC DESIGN CHANGES

- Promote large-scale changes in our design processes, including the adoption of low-carbon concrete, increased use of biogenic materials, and design for deconstruction.
- Regularly review and update material specifications and design checklists to ensure our practices reflect the latest industry advancements in carbon reduction.

POWERED BY PROTECTION

Environmental Responsibility &  
Climate Leadership

OUR IMPACT AT A GLANCE

	MW of renewable (solar) projects completed by the firm	~3,400
	MW of renewable (solar) projects completed on landfills/brownfields	~68
	Miles of electrical transmission projects in New York State	~300
	Provided energy audits for 276 buildings totaling total square feet of	20 MILLION
	Number of landfills properly closed	100s
	Total number of brownfields cleaned and put into productive use	65
	Recycled e-waste	4.8 TONS
	Cumulative number of gallons of water we have treated for PFAS	6.6 BILLION+



Our History & Mission

LaBella was founded in 1978 as a civil and environmental engineering firm, serving client communities on the shores of Lake Ontario. Beginning in its early years, the firm provided clean water engineering solutions for these communities in accordance with the federal Clean Water Act. In witnessing firsthand the degradation of the Great Lakes freshwater ecosystem, LaBella became increasingly committed to the creation of clean water solutions for our town and village clients.

As the nation began to focus on new and urgent environmental and social needs with the federal hazardous waste and Superfund regulations of the 1980s, our business grew. The environmental health issues of the communities in which our employees lived and practiced influenced the course of LaBella's growth. The heavy industrial Great Lakes steel, petrochemical, photographic, and automotive industries in our communities contributed to the degradation of our air and water quality. The discovery of Love Canal, the pollution of Onondaga Lake, and the Cuyahoga River fire all raised worldwide awareness of the anthropogenic degradation of the Great Lakes' ecosystem.

These environmental events caused us to concentrate on stewardship efforts and build a consulting business centered around land recycling, water treatment, brownfield cleanup, and hazardous waste cleanup. We take great pride in these services, knowing that our expertise leads to results in which our drinking water is protected, our beaches are safe, and our air is breathable.

LaBella has continued to grow and evolve as a corporate environmental citizen. With this evolution and the climate challenges that are now facing the planet, we recognize that it is our responsibility to continue to provide our client partners and communities with our expertise in renewable energy, climate solutions, energy efficiency, and impactful solutions to achieve carbon neutrality.

4

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# REPORTING PLAN





## OBJECTIVE

Develop a robust framework for calculating, tracking, and reporting embodied carbon data across our projects.

## SE 2050 | REPORTING PLAN

### METHODOLOGY & TOOLS:

### CALCULATION PROCESS

- Use industry-standard life-cycle assessment (LCA) software such as Tally and EnviCASE to quantify embodied carbon.
- Extract material quantities directly from Revit models at the end of the design development phase, ensuring that all key parameters (e.g., concrete compressive strength, reinforcement details) are accurately captured.

### DATA TRACKING AND REPORTING

- Develop an internal database to log embodied carbon metrics for each project, enabling cross-project comparisons and benchmarking.
- Set a target of reporting embodied carbon data for at least 25% of qualifying projects in our annual sustainability report.
- Regularly review and refine our LCA methodology and reporting processes to incorporate lessons learned and emerging best practices.



5

SEP 2050

# ELECTIVE DOCUMENTATION



## SE 2050 | ELECTIVE DOCUMENTATION

### EDUCATION: CHAMPION ENGAGEMENT

- Each region will have an appointed Embodied Carbon Reduction team member responsible for facilitating internal education initiatives.
- Champions will lead at least one dedicated embodied carbon webinar per year, with recordings made available on our internal portal.

### REDUCTION: FIRM WIDE TARGETS

- Establish and publicize clear reduction targets for both short-term and long-term.
- Integrate reduction targets into project management protocols and design review checklists.

### REPORTING:

- Each region will submit two projects with a company wide minimum of five projects to the SE2050 project data database.



S E 2 0 5 0 | E L E C T I V E D O C U M E N T A T I O N

## ADVOCACY:

### CLIENT COLLABORATION

- Develop marketing and presentation materials that articulate the value of the SE 2050 commitment to clients.
- Host client-focused workshops to demonstrate how design teams can collaborate to achieve embodied carbon reductions.

### EXTERNAL OUTREACH

- Use external platforms—including our website, social media channels, and industry publications—to share our embodied carbon success stories and lessons learned.

SE 2050

# CONCLUSION

This plan represents our firm's roadmap for reducing embodied carbon and serves as both an internal guide and a public statement of our commitment to a sustainable future.

LaBella Associates, D.P.C. recognizes the critical need to address embodied carbon and lead the transformation of the built environment. By advancing our efforts in education, reporting, reduction strategies, advocacy, and continuous improvement, we are steadfast in our commitment to the SE 2050 initiative. Together, we are building a sustainable and resilient future, setting new standards for carbon neutrality in the industry. Our collaborative and innovative approach will serve as a model for others to follow, ensuring a meaningful and lasting impact.



Greg Senecal, CHMM  
Executive Director of  
Climate & Environment  
LaBella Associates, D.P.C.

March 21, 2025



Andy Karlson, PE  
Structural Discipline Leader





# LaBella

Powered by partnership.

