
Rachel Wagner

Education/Training

B.S. Design and Environmental Analysis, 1988
Cornell University, Ithaca, NY

Passive House Consultant Training, 2012
Zero Net Energy Homes Masters Series Training, 2016
Climate Reality Leadership Corps Training, 2019

Professional Registration

Licensed Architect, State of Wisconsin

Employment

Just Housing SBC, Duluth MN

Owner/Creative and Technical Director
2019 to present

Founded and lead this public benefit corporation dedicated to an equitable transformation of housing and homebuilding, affirming sustainable housing as a basic need and human right. Design ready-to-build zero energy house plans, develop strategies for retrofits to existing housing stock, and deliver education about sustainability and equity and workforce training in green construction.

through design LLC, Duluth MN

Owner

October 2018 to present

Ecologically and socially equitable consulting and program/project development

Wagner Zaun Architecture Inc, Duluth, MN

Co-founder and co-owner/principal

September 2005 – October 2018

Led firm in sustainable design, building performance modeling and analysis. Expertise in integrated design, high performance building, and passive solar design. Delivered continuing education to builders and design professionals. Designed homes to Passive House, zero energy and DOE ZERH standards.

art¹chitecture, Duluth, MN

Sole proprietor

September 1996 – September 2005

Residential and commercial design, research and consulting. Specialization in energy efficiency, conservation, passive solar design, and sustainability

Schoen Associates, Inc., Grand Forks, ND

Designer/Project Manager

November 1993 - August 1996

Commercial programming, design, and project management

Kirkpatrick Associates Architects, Los Angeles, CA

Designer

April 1990 - August 1993

Residential design, contract documents, and project management

Robert S. Leathers & Associates, Architects, Ithaca, NY

Designer

May 1987 - October 1989

Design and coordination of volunteer-built playgrounds nationwide

Community Involvement

Wisconsin Technical College Building Science Program Advisory Board 2019 - present

Green New Deal Housing, Board Secretary 2019-2021

Duluth Climate Mobilization Steering Committee, 2019-2020

Climate Reality Project/Climate Reality Leadership Corps, 2019 - present

Kennedy for Duluth Campaign Committee, Events Coordinator 2019

Duluth Energy Design Conference planning committee 2005-2019

Hartley Nature Center Board Member 2011-2014

Duluth Cities for Climate Protection Committee 2006-2010 (Chair 2010)

Program Development

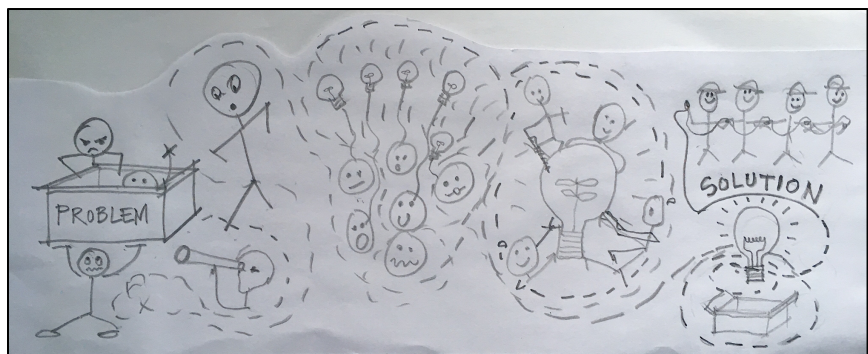
Outside the Box

duluthfolkschool.com/youth/outside-the-box/

Co-created in 2019 by Rachel Wagner | through design LLC and Tiersa Wodash | Brick and Mortar LLC

Co-director through 2021, now operating as a permanent program at the Duluth Folk School

Outside the Box is a non-profit initiative offering middle school students and their families opportunities for non-traditional education and community engagement related to design, construction, and sustainability. Founded by an architect and a designer, the program offers activities in the Lincoln Park neighborhood and at local community centers, with an emphasis on serving historically marginalized and nondominant populations. Taught by diverse community role models, activities blend creative, technical and leadership skills to give young people tools to develop and practice creative problem solving.

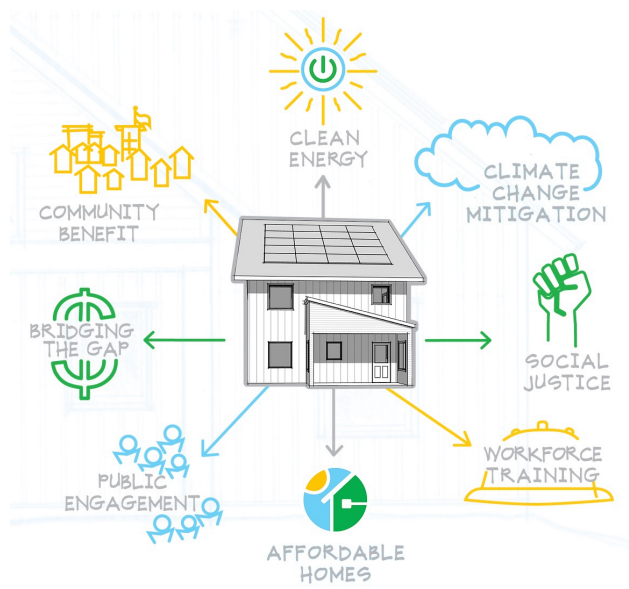


Green New Deal Housing

greennewdealhousing.org

Founded in 2019 by Rachel Wagner and Greg Gilbert

Rachel Wagner served on the Board of Directors and led program development of the organization from 2019 until 2021. through design LLC served as the Interim Executive Director for Green New Deal Housing (Aug 2021-May 2023)



Green New Deal Housing is both a housing development organization and an educational training provider with the mission to develop equitable zero energy housing and a green collar workforce.

Areas of focus include expanding the quality and quantity of affordable housing, training a workforce in high performance and green building techniques, helping the transition to 100% renewable energy and creating a business model for environmental and economic justice.

Public and private sector mechanisms are engaged to create access and opportunities, providing an equitable model for climate-resilient zero energy housing development and participation in the green economy.

The nonprofit organization develops zero energy homes to sell to income qualified buyers, delivers workforce training in green construction, provides public engagement and forms community collaborations.

Presentations/Curriculum Development/Workforce Training – Examples

What is Green Building and Why Should I Care?
Good Energy
Laying the Groundwork for Sustainable Housing: a 4-part course in green building theory and practice
Blueprints for Green Homes
Systems Thinking and Integrated Design
Climate Change and Justice Through Design
Net Zero Homes and Community Resilience
Making Change Through Design
Zero Net Energy for the Rest of Us
Banging my Head Against the High-Performance Wall
Housing + Climate: Bigger than a House
High Performance and Sustainable: From Custom to Customary
The Ecologists' House: a zero energy case study
A Tale of Two Retrofits

Research/Publications

Zero Energy Housing: Why Here, Why Now, 2022
Article for the Duluth Reader | Climate Talk

"How Much and How Much Better?", 2022
Collaborative research project between University of Minnesota Duluth and Green New Deal Homes SBC (now Just Housing SBC) to compare, analyze and evaluate the economic and environmental costs of building a home to current code vs building the same home to zero-net-energy standard.

Single-family Net Zero Energy Home, 2018
Fond du Lac Band of Lake Superior Chippewa, Cloquet, MN
Design for a prototype net-zero-energy, ecological, affordable housing model

U.S. Dept of Energy Building Technologies Program, February 2013
"Excavationless Exterior Foundation Insulation Exploratory Study"
by G. Mosiman, R. Wagner, and T. Shirber, NorthernSTAR Building America Partnership

Fine Homebuilding, "Energy Smart Details: Double Stud Walls"
May and July 2012, Written by Rachel Wagner

Skyline House, Case Study: Green Building Advisor website, 2009

Skyline House featured in *Energy Design Update*, December 2007

Houses for a Changing Climate, Passive Houses in the U.S., 2008
Chapter 9: The Skyline House – A Passive House Challenge
Written by Katrin Klingenberg, Published by Low Carbon Productions

Fine Homebuilding, "Houses You Can Heat with a Hair Dryer"
May 2008, Written by Rachel Wagner

Home Energy Magazine, "Comfort in a Very Cold Climate"
February 2008, Written by Rachel Wagner

Eco-Home at Hawk Ridge: Solar Demonstration Home, 2006
House design, tours and educational materials
www.ecohomeduluth.com

The Sustainability Index: A Framework for Affordable Housing, 2006
Research and Report for the Northern Communities Land Trust, Duluth, MN