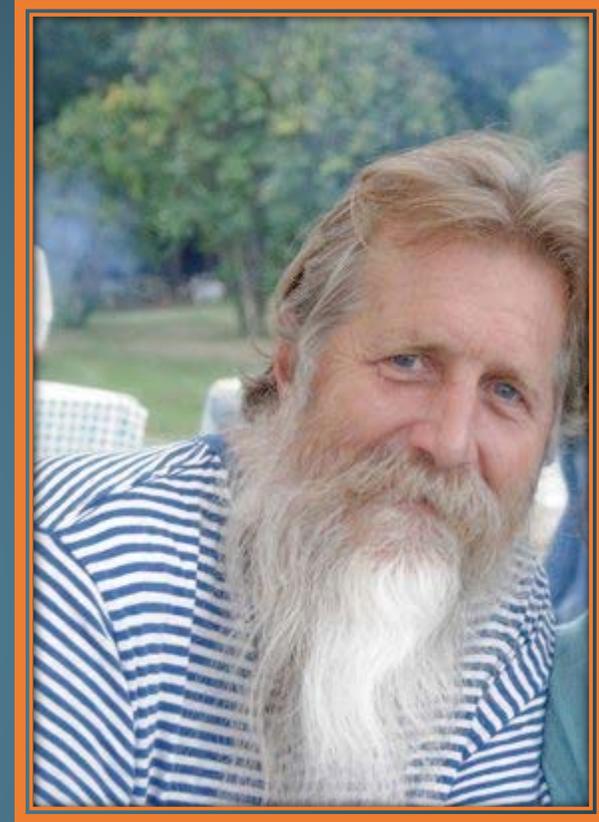


DOE Zero Energy Ready Neighborhood



Kendall Carpenter



Mike Carpenter

AquaZephyr: Construction Management

Stakeholders

Construction
Trades

Code Enforcers

TREE
Construction
Team

Construction
Management

Passive House
Verifiers

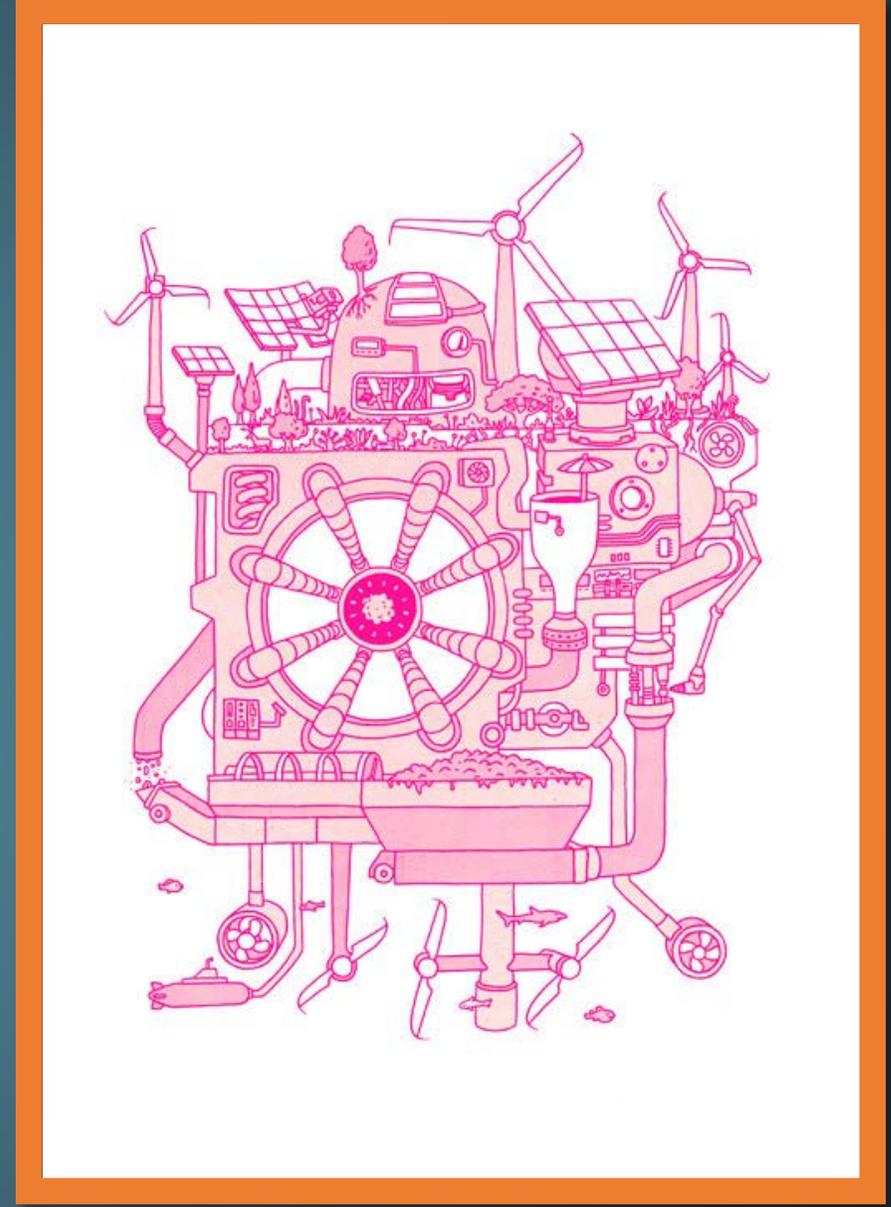
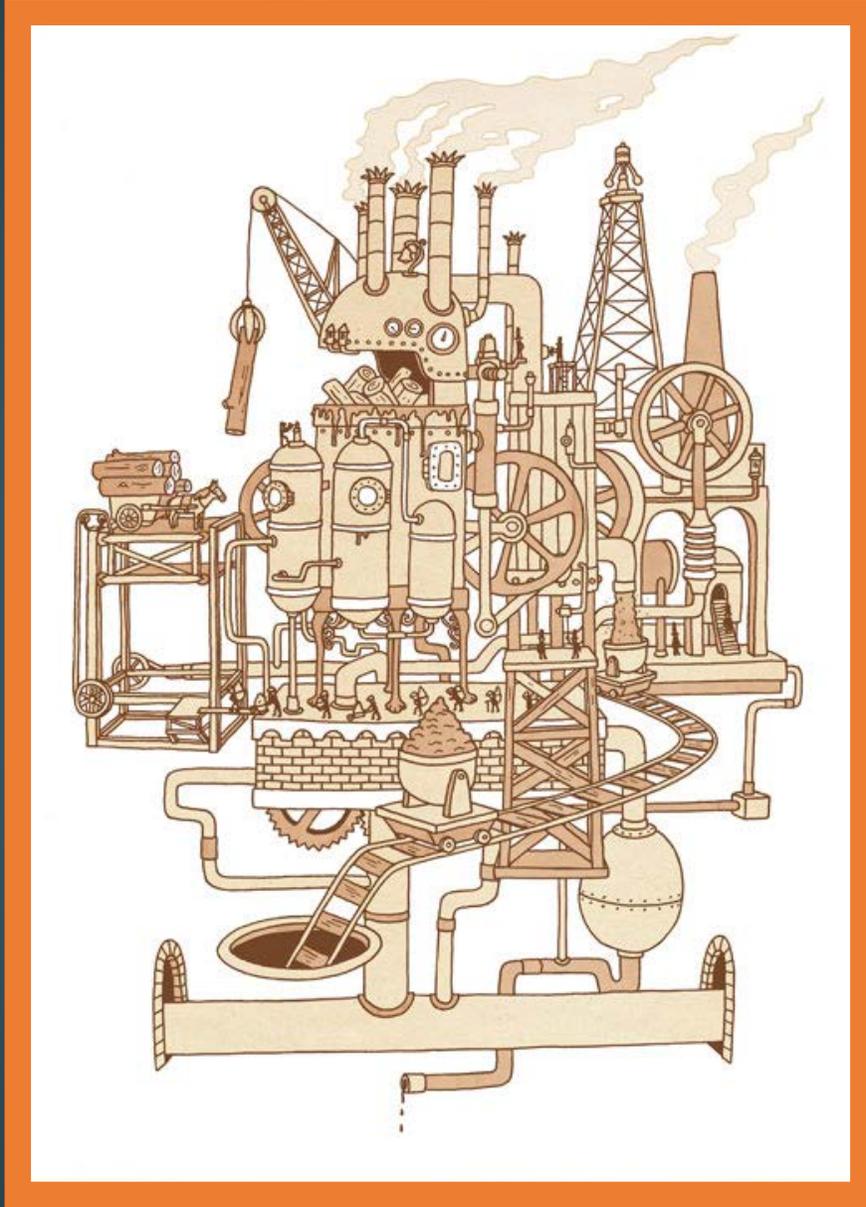
TREE
Shareholders

LEED Certifiers

TREE Finance

Architects and
Engineers

When all Stakeholders are NOT integrated



Integrated Home Building

- Accessible
- Affordable
- Sustainable



Passive House Design Principles

- Super insulated – very comfortable homes
- Air sealed envelope – no thermal bridging
- Energy recovery ventilation - excellent air quality
- High-performance windows and doors
- Passive solar orientation
- Minimizes the heating and cooling load
- Systems approach to modeling, design and construction

Different Approaches for Different Results

Code

- Architect / Engineer
- Owner
- Contractors
- Code Enforcer
- Construction Manager

LEED

- Architect / Engineer
- Owner
- Contractors
- Code Enforcer
- LEED Certifier
- HERS Rater
- Construction Manager

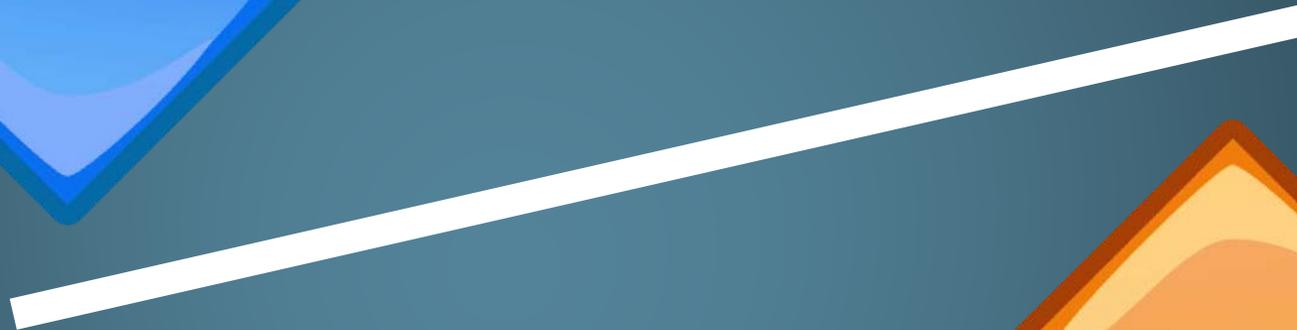
Passive House

- Architect / Engineer
- Owner
- Contractors
- Code Enforcer
- Passive House Verifier
- Construction Manager

When the Rules Conflict



Code requires
vapor barrier on
inside of wall system



High performance house
using foam insulation puts
a vapor barrier on the
outside of wall



The Tree Houses



The Blower Door Rules the Day!





HRVs

HRVs



Attention to the R-value of the eve



Under-slab Insulation



Caulk the Framing to the Sheathing



Only One Header Needed





Mid-rise vs Single Family

- Excellence in Energy Performance
- Affordability
- Efficiency in Materials Use
- Simplified Accessibility



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*Housing
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Awards*

AquaZephyr

Eco-Village Ithaca
Ithaca, NY



BUILDER PROFILE

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Karla Donnelly, kdonnelly@swinter.com

One-foot-thick, double-stud walls helped the Eco-Village Ithaca community achieve certification from the U.S. Department of Energy's Zero Energy Ready Home program. The 17 single-family and four duplex homes are the third, and most efficient, phase of a community of 100 homes that were built for a cooperative living organization called Eco-Village Ithaca, which is part of a loose affiliation of Eco-Village communities around the world. Eco-Village seeks to provide housing that is affordable, durable, sustainable, comfortable, and

Contact Information

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Visit our website for more information

Interested in a tour?
Contact us through
EcoVillagelthaca.org

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Climate Smart Communities Webinar

Website Address



<http://www.dec.ny.gov/energy/50845.html>