Welcome

Tim McCarthy, licensed Architect since 1997, Tim started New Leaf NZM in 2015 with over 36 years of a diverse background of design and construction in the north country.

WHAT IS zero energy modular (net zero)
WHY IS IT possible now?
HOW much does it cost
WHY we need them
HOW we build them.
WHAT IS A ZERO ENERGY HOME (ZERO ENERGY MODULAR)

SUN GENERATES POWER
HOME USES WHAT IT NEEDS
EXCESS POWER FEEDS TO GRID
HOME GETS POWER FROM THE GRID WHEN NEEDED
THE SUM TOTAL FOR THE YEAR IS NET ZERO!

IMAGE COURTESY BRIGHTBUILT HOME
PORTLAND MAINE
WHAT MAKES NET ZERO OR ZEM POSSIBLE

BIGGEST REASON: AIR TO AIR HEAT PUMPS OR DUCTLESS MINI SPLITS.
OVERHANG SIZE “TUNED” TO THE SITE TO PROTECT WINDOWS FROM SUN IN THE SUMMER, AND LET IT IN IN THE WINTER.

VENTILATED ROOF

TWO-LAYER VENTILATED ROOF
(STEEL ROOF WITH INNER WATERPROOF LAYER OF MENTO)

PATENT PENDING
FAST INSTALL OVERHANG TUNED TO EACH BUILDING SITE TO LET LIGHT IN IN THE WINTER AND OUT IN THE SUMMER.

VENTILATION AND UTILITIES CHASE INSIDE BUILDING ENVELOPE

CHASE FOR VENTILATION AND UTILITIES

TRIPLE GLAZED WINDOWS AND DOORS

DECKS BUILT BY OUR PANELIZATION TEAM

16” DEEP FLOOR SYSTEM R 43.

HELICAL PILE FOUNDATION TO LOWER COSTS (ANY FOUNDATION IS AVAILABLE)

OPTIONAL MUD ROOM TO ARRIVE AS MODULAR OR PANELIZED DEPENDING ON LOGISTICS.
THIS PREVENTS THE OWNER FROM ADDING ON TO THE BUILDING AND PUNCTURING THE INTELLIGENT BUILDING ENVELOPE.

TWO TONE VINYL CLAPBOARD SIDING AND VINYL SOFFIT INCLUDED.

HIGH PERFORMANCE BUILDING SUPPLY
INTELLIGENT VAPOR OPEN PRODUCTS USED THROUGHOUT

Tim McCarthy
Architect PC and New Leaf NZM
BENEFITS OF MODULAR OR PANELIZED CONSTRUCTION

- The GWNs building season is just stupid short.
- No loss of work days due to weather.
- Materials never get wet!
- Carpenters stay on all year long.
- Materials cost less in the winter.
- More carpenters are available in the winter.
- Most Single family homes are manufactured or modular homes.
Zem, why do we need them.

People need better purchase options.
Affordable housing advocates and industry representatives alike have referred to the approximately 2 million mobile homes produced before 1976 and still in use today in all 50 states as the “worst housing stock” in the United States. Most of these homes are found in economically depressed, rural areas and shelter a majority of Americans who are near the poverty level. The highest concentrations of manufactured housing built in 1979 or earlier are found in the South (about 1 million units), followed by the West (about 750,000 units). The disrepair of these structures threatens more than neighborhood real estate values. Leaking roofs, collapsing floors, kerosene-heated interiors, and other conditions jeopardize the health and safety of mobile home residents, many of whom are elderly and disabled. Produced more than three decades ago with little consideration for energy efficiency, these structures have deteriorated over time and are now energy sives. Heating and cooling energy escapes through unsealed windows and non-insulated walls, creating an uncomfortable living environment with an oversized carbon footprint. According to the U.S. Department of Energy’s Residential Energy Consumption Survey, manufactured homes built before 1980 consume an average of 84,316 BTUs per square foot, 53 percent more than all other types of homes. Housing experts report it is not uncommon for some of the lowest-income households to see their energy bills absorb half or more of their income, but, for many reasons, they fall through the cracks of federal government assistance. Pre-1976 mobile homes are generally in such bad condition that traditional energy conservation techniques do not work. The Department of Energy’s Weatherization Assistance Program will not touch them, and they are typically outside urban program areas. The only way to improve housing livability and affordability for those who reside in old mobile homes—and to stop this vast waste of energy—is to entirely replace these homes with more energy-efficient units.
Monthly Cost Comparison

CONVENTIONAL MANUFACTURED HOME

- Heat and electric
- Loan Payment

Net Zero Mod.

- No energy costs!
Monthly Housing Cost over 10 years (mortgage + energy)

Typical Manufactured Home

VERMOD Home

Year 1 2 3 4 5 6 7 8 9 10

IMAGE COURTESY VERMOD HOMES, VERMONT
NEW LEAF NZM FACILITY
Bombay NY

trying to create jobs in an impoverished area

THIS IS A PANELIZED UNIT
Factory built, all electric, high performance homes heated and powered by the sun.

newleafhome.org

New Leaf NZM (net zero modular)  
a division of Tim McCarthy Architect PC

text 518 353 4541 or email tmccarthy821@gmail.com to set up a call.
Not your average modular home. Tim McCarthy of New Leaf Homes is in the pre-venture stage with his patent-pending, highly engineered, fast to erect, super insulated, framing system for an entire house that is similar to what is used in the roof truss industry. While he is currently building a model for a client he is also navigating the certifications required for the state and that ever present question of funding to build the business further.
THE NET ZERO (READY) MODULARS