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# BRIDGING COMFORT AND SUSTAINABILITY

*This project is intended to show that an older house can be revitalized to reduce its carbon footprint to near zero, while enhancing its traditional Victorian-cottage look and comfort.*

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*Marc Sloom, a green-accredited architect with SALA Architects, has designed the renovation to accomplish two goals:*

*For the house to produce as much energy as it consumes*

**AND**

*For the traditional character of the 1907 house to be preserved and enhanced*

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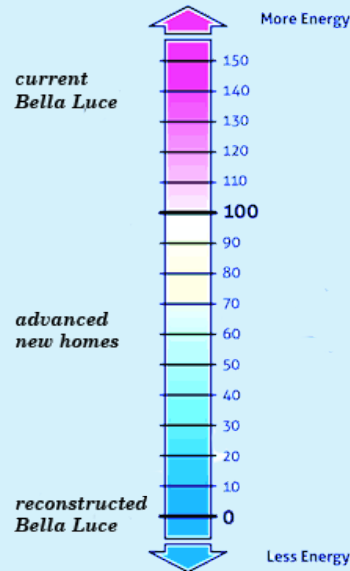
*Slated for completion in early spring of 2016, it appears to be the first net zero renovation of its kind in Minneapolis-St. Paul.*



*To educate others and leave a positive legacy, we wish to share our experience and story readily.*

*We are interested in showcasing products that are advanced in design, and contribute to these two goals:*

- 1. Preserve and enhance the traditional character of the house.*
- 2. Net zero energy use.*



*For more information, please contact:*

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# BELLA LUCE



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*Restoring a century-old house in the Whittier neighborhood towards net zero\* energy use*

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\* Net zero means that the house will produce more energy than it consumes, for heating, cooling and electrical use.

# BLENDING ELEGANCE AND EFFICIENCY



## 1. FOR THE HOUSE TO PRODUCE AS MUCH ENERGY AS IT CON- SUMES (“NET ZERO”) ...

Using state-of-the-art technology, the house will aim at the new Green Star standard for net zero construction.

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### Energy conservation will be prioritized

A thick blanket of dense insulation will wrap the walls and roof

High performance, triple-paned windows will be installed

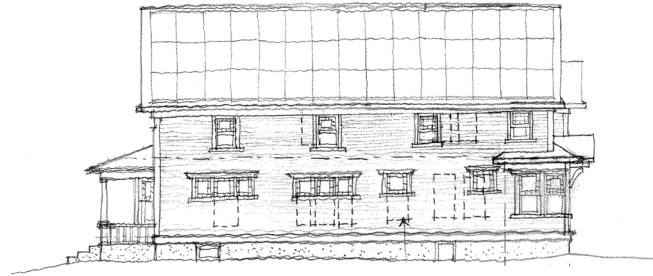
Very low consumption lights and appliances will be installed

### Non-carbon renewable energy sources will be used

An 18 Kilowatt solar PV array on the house and garage, producing an anticipated 20,000 Kwhrs per year

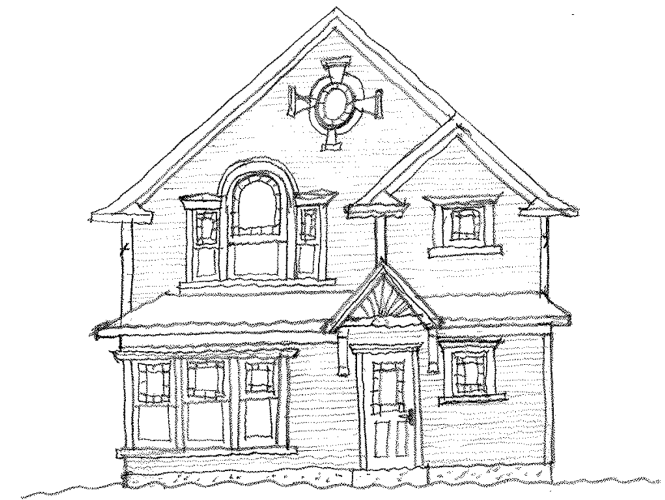
A high-efficiency ground source heat pump heating and cooling system drawing on four geothermal wells in the backyard

A 220-volt charger for electric car in the garage



The owners have a passion for education in renewable energy and home restoration. Forty years ago, Stewart Herman wrote a book (*Energy Futures*) about tapping new sources of energy. He also helped rescue from deterioration the 130-year-old family house on Shelter Island, New York. For the past ten years, he has worked to advance sustainability at Concordia College in Moorhead, MN. Through all the house projects, his wife, Linda, has kept a warm and welcoming home for the family and guests.

Now Stewart and Linda are retiring from college teaching (religion and history, respectively) and have decided to reduce their carbon footprint by renovating the 1907 house to the new Green Star standard. They both want to leave a legacy for their children, and also inspire other retiring baby boomers to revitalize their urban neighborhoods by renovating for quality as well as environmental improvement.



## 2. FOR THE TRADITIONAL CHARACTER OF THE 1907 HOUSE TO BE PRESERVED AND ENHANCED ...

Renovation of the interior, while preserving original wood floor and trim

Open to sunlight through large windows to east and west as well as stained-glass accent windows

Spacious kitchen and bathrooms, using fine materials (quartz counters, etc.)

Traditional narrow lap siding, with Victorian cottage paint palette for coordinating siding and trim

New windows of period design sashes and wooden grills, yet easy to flip and clean

A formal dining room and parlor on the first floor, as well as an informal family room

Second floor accessibility: large bathrooms and a wide staircase to accommodate a future chair lift

The second floor will feature a master bedroom with a barrel vault ceiling, a Palladian window, and two large closets

Open to the neighborhood: front porch restored to a welcoming design

Neighborhood scale retained by adding small addition at rear to accommodate a mudroom, sun porch, and exterior insulation throughout