

# wasteLESS

# M O D U L A R H O U S I N G



Create **sustainable** residential options for Americans with the ability to **personalize** for each individual's lifestyle.

## Why modular?



- Can move into home faster
- Customization does not considerably delay move-in time and is typically still faster than custom designed homes
- May not be able to afford a designed home otherwise

## Why pre-fabrication?



- Faster assembly
- Better quality control
  - Climate controlled environment
  - Waste control
  - Cheaper labor costs

## Why wood?



- Nearly 90% of residential construction in the USA is made with wood
  - cheaper material
- Sustainable forest management

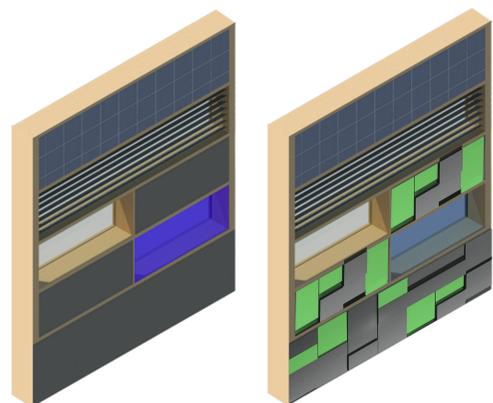
1 yard<sup>3</sup> = ↓ CO<sub>2</sub> emissions by ≈ 1.1 tons  
+ CO<sub>2</sub> stored in wood ≈ 0.9 tons  
saves a total of **2 tons** of CO<sub>2</sub> emissions



Homeowners have the chance to **customize their home**. Because of this, the overall aesthetic will be more appreciated and will therefore **last longer** as the homeowners will want to maintain their custom-made homes.

## Why is this better than traditional?

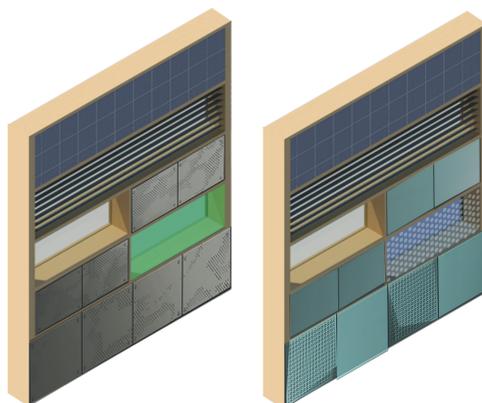
# CUSTOMIZABLE



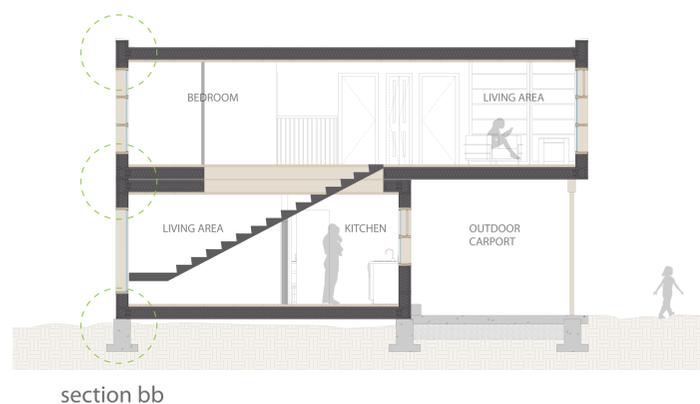
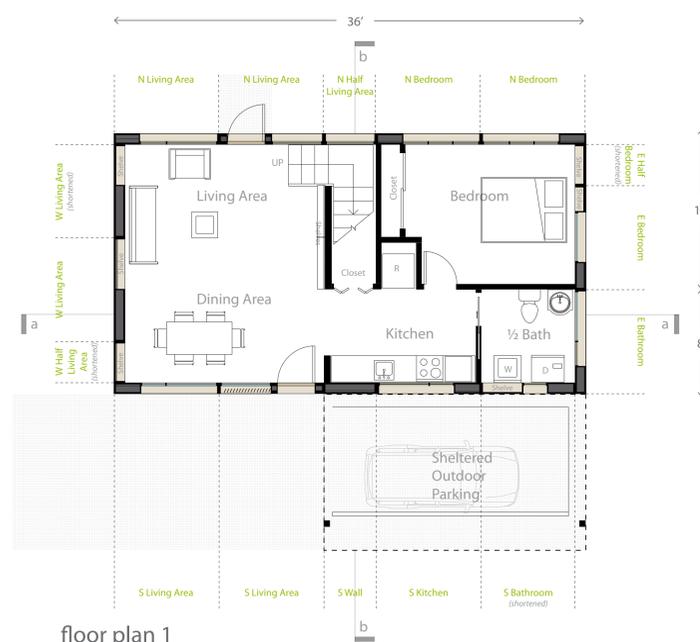
Each homeowner can **customize the exterior aesthetic that fits their style:**

The **rainscreen panels** can have texture, reflectivity, perforations, or color.

The **translucent glass windows** can be frosted, colored, or fritted



## SPACE SAVING



## DESIGN CRITERIA

no single-use spaces



MEP efficiency integration



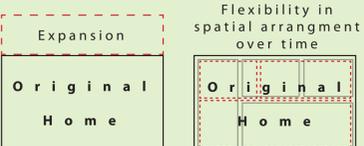
balance of private + public



usable wall space



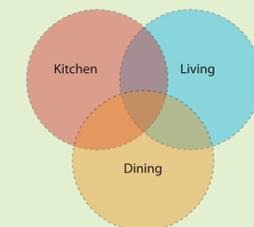
ability to change over time



flexibility of spaces

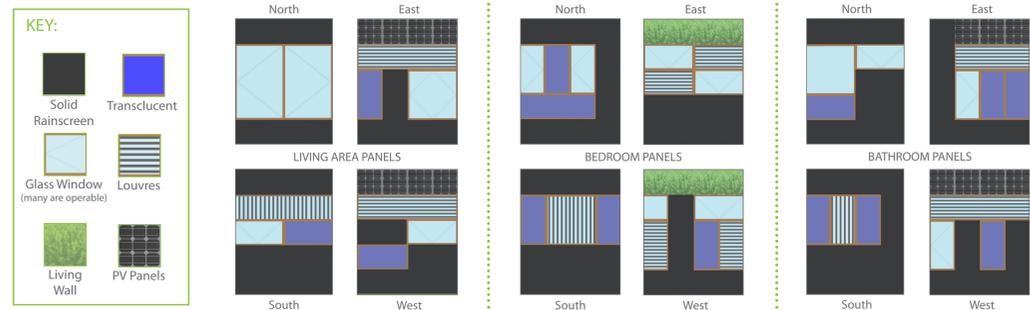


integrated kitchen, dining and living areas

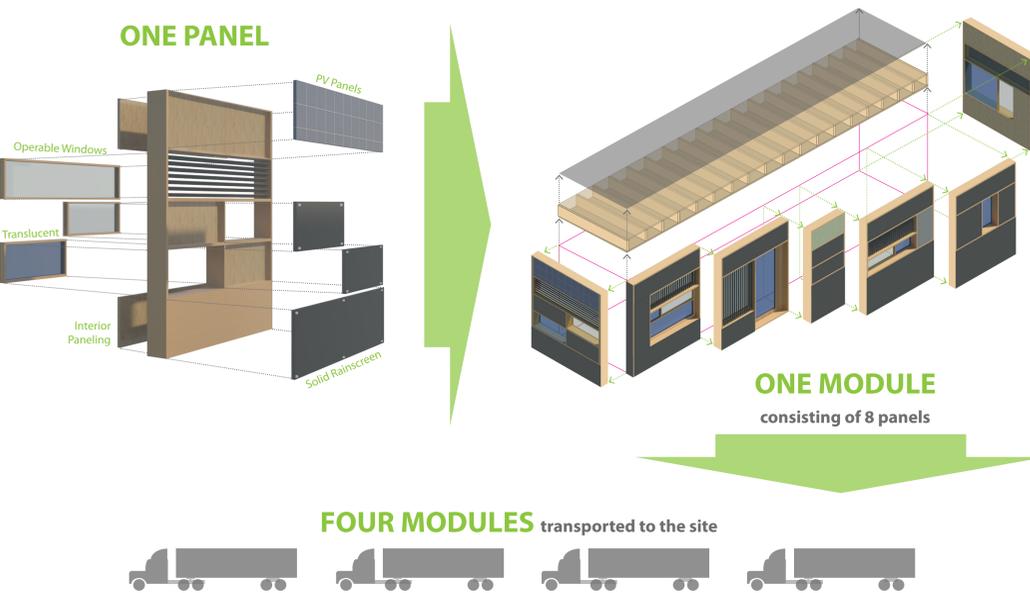


# ADAPTABLE to all CLIMATES

## Midwest Catalog of Exterior Panels



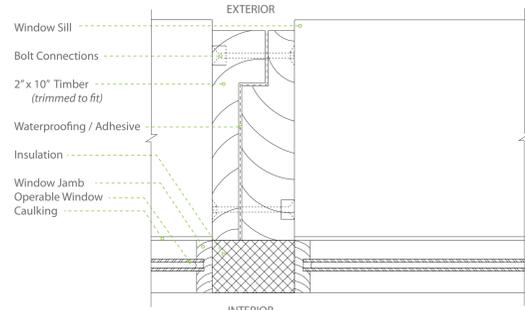
## PROTOTYPE HOME



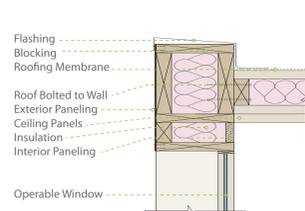
**ONE CUSTOMIZED HOME**  
Consisting of 4 Modules and 32 Panels

# CONNECTIONS

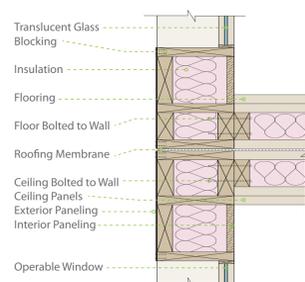
## Panel-to-Panel



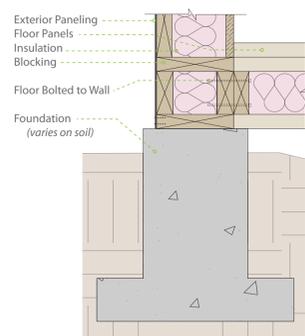
## Roof-to-Panel



## Floor-to-Panel

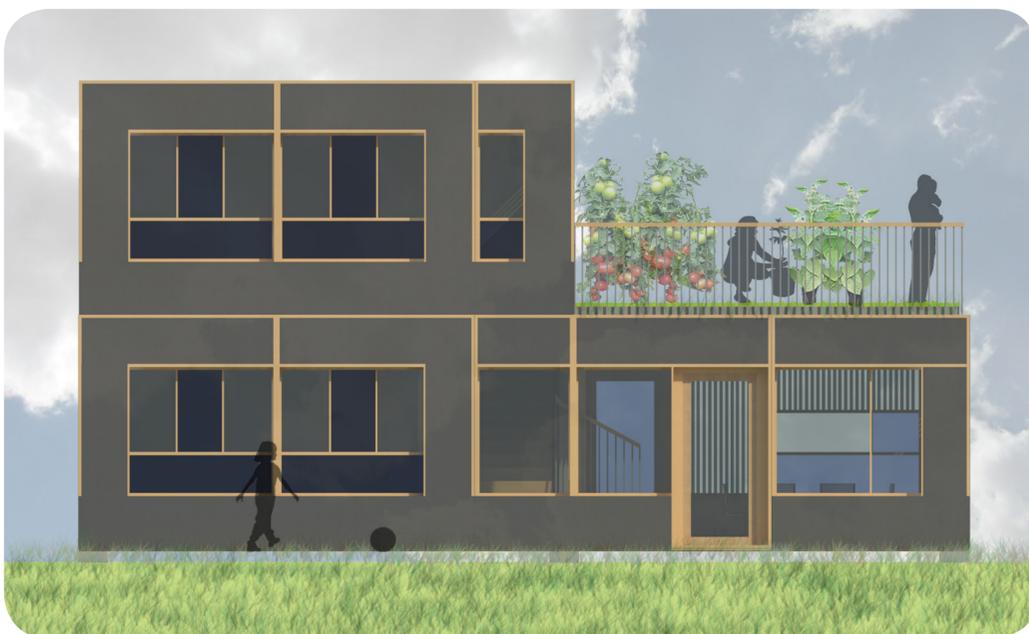


## Foundation-to-Floor-Panel



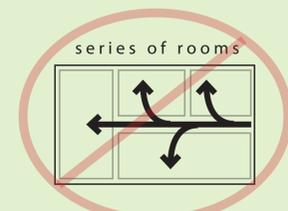
## INTERIOR

Many of the Exterior Panels have **built-in storage and/or display areas.** This allows for each homeowner to decorate their home in their own way as well as increasing the amount of storage area within the home.

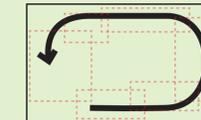


north elevation

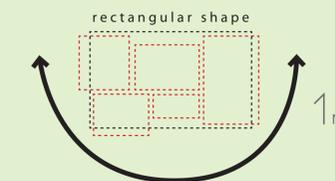
circulation flow



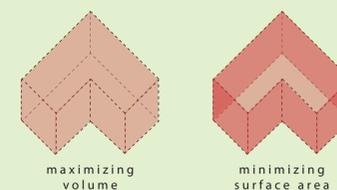
sequence of places



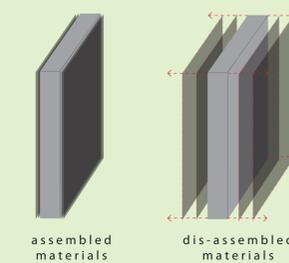
solar orientation



surface to volume ratio



adherence of materials



connection points

