



KEPHART

community ■ planning ■ architecture



The Modern Modular

Our goal is to provide simple sustainable housing with factory produced living components. This type of production will further empower the community through vocational experience and volunteerism.



Living Components

Due to transportation restrictions, the components are limited in size. Standard size rooms allow common building material dimensions.

Homes are easily adaptable to accommodate changing needs (multi-generational situations).

Living components are sheltered under a pre-manufactured steel roof canopy. It's a scaled down version of the shading structures used by farmers to protect bales of hay.

Steel canopy is returned to large concrete base to provide stability and blend the interior and exterior the living spaces. Outside of the living components it could provide shade, parking, or storage.

Strong structural stability in end product because each component has to have enough strength as individual components to successfully transport on a trailer.

Manifold walls on the components can be opened and allow for more open floor plan.

Factory built construction

Components are assembled in a controlled environment which minimizes weather related issues like mold, building delays, and varying temperatures and avoids damaged or stolen building materials.

Assembly line production, or lean production, maximizes the efficiency and quality of the product while developing a culture that so-levs for continuous improvement.

Storage is on site, which minimizes construction waste and maximizes the purchasing power of the manufacturer.

Components are transportable and can be installed on various foundations like stilts in areas prone to flooding.

Can provide quick housing as a result of natural disasters or areas where conventional building is difficult.

Pod or concrete columns can be installed and curing while being components are in production.

Modular Component Living

the ART of the small house



Service to the community

Assembly line production maximizes the ability for volunteers to help in time of need without construction experience.

Empowers an individual by providing a sense of achievement and opportunity to learn numerous vocational skills which leaves a lasting contribution to the community.

Providing event equity to making housing affordable for future home owners.

Sustainable

Transportation is minimized by factory construction versus conventional on site construction due to numerous materials shipped to a job site.

Reduced material waste in factory because of storage on site and reuse steel per common building material dimensions.

Low tech approach to cooling. Steel shading structure allows breeze to pass through for additional cooling and concrete foundation provides high thermal mass for limited temp fluctuations.

Simple construction and building materials. Recycled materials or materials with a long life cycle.

Building with structural insulated panels cut out home energy consumption (R50 in wall cavities) and are suited for building in a factory due to their standard size joints. The foam core insulation in the walls are more airtight than conventional wood frame construction which improves indoor air quality.



Design Possibilities

Combine components to achieve a higher density for temporary or permanent situations.

Components could stack on steel stilts or platforms in areas prone to flooding.

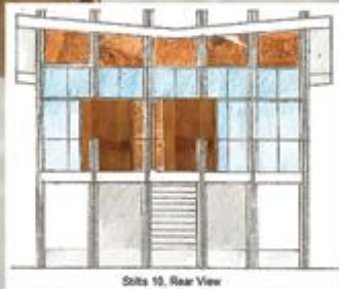
Roof structure variations due to climate or elevation style... could be mountain rustic with a single slope roof pitch and large overhangs or steel and concrete shade canopy in an arid climate.



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Living Components



Due to transportation restrictions, the components are limited in size. Standard size rooms utilize common building material dimensions.

Homes are easily adaptable to accommodate changing needs (multi-generational situation).

Living components are sheltered under a pre-manufactured steel roof canopy. It's a scaled down version of the shading structures used by farmers to protect bales of hay.

Steel canopy is secured to large concrete bed to provide stability and blend the interior and exterior the living spaces. Outside of the living components it could provide shade, parking, or storage.

Strong structural stability in end product because each component has to have enough strength as individuals components to successfully transport on a trailer.

Marriage walls on the components can be opened and allow for more open floor plan.



Factory built construction

Components are assembled in a controlled environment which minimizes weather related issues like mold, building delays, and varying temperatures and avoids damaged or stolen building materials.

Assembly line production, or lean production, maximizes the efficiency and quality of the product while developing a culture that strives for continuous improvement.

Storage is on site, which minimizes construction waste and maximizes the purchasing power of the manufacturer.

Components are transportable and can be installed on various foundations like stilts in areas prone to flooding.

Can provide quick housing as a result of natural disasters or areas where conventional building is difficult.

Pad or concrete columns can be installed and curing while living components are in production.



Service to the community

Assembly line production promotes the ability for volunteers to help in time of need without construction experience.

Empowers an individual by providing a sense of achievement and opportunity to learn numerous vocational skills which leaves a lasting contribution to the community.

Providing sweat equity to making housing obtainable for future home owners.

Sustainable

Transportation is minimized by factory construction versus conventional on site construction due to numerous materials shipped to a job site.

Reduced material waste in factory because of storage on site, and rooms sized per common building material dimensions.

Low tech approach to cooling: Steel shading structure allows breeze to pass through for additional cooling and concrete foundation provides high thermal mass for limited temp difference.

Simple construction and building materials: Recycled materials or materials with a long life cycle.

Building with structural insulated panels can cut home energy consumption down by 50%. SIPs panels provide maximum energy efficiency (R50 in wall cavities) and are suited for building in a factory due to their standard size panels. The foam core insulation in the walls are more airtight than conventional wood frame construction which improves indoor air quality.



Design Possibilities

Combine components to achieve a higher density for temporary or permanent situations.

Components could stack on steel stilts or platform in areas prone to flooding.

Roof structure variations due to climate or elevation style...could be mountain rustic with a single slope roof pitch and large overhangs or steel and tensile shade canopy in an arid climate.



Simple **sustainable** housing with factory produced living components.



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This type of production will further **empower** the **community** through vocational **experience** and **volunteerism**.

