MASSTAC
Washington Mass Timber Accelerator

Modular detached homes

MASS TIMBER HOUSING OPPORTUNITIES –
UTILIZING LOCAL RESOURCES TO DELIVER HOUSING AT ALL SCALES

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This book series reflects the deep commitment and innovation of organizations dedicated to developing projects with mass timber across different typologies. We would like to thank the MASSTAC Housing Committee members and individuals for their participation and support.

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The Washington Mass Timber Accelerator would like to express its gratitude for the generous funding provided by the Washington State Department of Commerce, which has enabled Washington's design, construction, and manufacturing industries to show the nation how we might sustainably address our housing crisis, at all scales, and across rural and urban landscapes.

Washington State Department of Commerce

About the Washington Mass Timber Accelerator

The Washington Mass Timber Accelerator (MASSTAC) is a non-profit organization working to advance high quality, low-carbon construction through increased utilization of locally manufactured mass timber. With representation from Indigenous communities, government agencies, private industry, labor organizations, and forestry, we are the central hub of mass timber activity in the State of Washington.

Our Mission

To sustainably and equitably accelerate the adoption of mass timber in construction, in Washington and nationally.

Our Vision

Locally manufactured mass timber is driving cleaner, faster, safer construction and healthier, more beautiful buildings in Washington and beyond.

We envision a future where mass timber is not only a standard in construction but also a catalyst for economic growth, community development, and environmental stewardship. Where sustainable mass timber buildings provide healthy and inspired environments for living, working, learning, playing, and healing. Where reciprocal relationships between cities and forests, urban and rural communities, support social, environmental, and economic well-being for our region.

Our Funders

Seed funding for MASSTAC was provided by the City of Seattle Office of Economic Development, and the Washington State Department of Commerce.

Contents

Foreword

Rico Quirindongo

DIRECTOR, OFFICE OF PLANNING
& COMMUNITY DEVELOPMENT, CITY OF SEATTLE

From Vancouver, British Columbia to Portland, Oregon, Seattle, Washington and the Olympic Peninsula, the Pacific Northwest has deep roots in the timber industry. Timber production in the state of Washington has not only shaped our cities but has also been pivotal in defining the region's economic trajectory. The state's forests, particularly in the Olympic Peninsula and the Cascade Range, have long been a rich source of timber, which fueled the state's development into one of the nation's most prosperous regions.

And so, the timber industry in Washington was not just about extracting resources, it was about transformation. The rise of the timber industry put Washington on the map and contributed significantly to the establishment of the Pacific Northwest as an industrial hub during the early 20th century. Cities like Seattle grew rapidly due to the vast timber resources of the region. The iconic sawmills and logging camps that dotted the Puget Sound provided raw materials for much of the nation's infrastructure and built the foundation of the Pacific Northwest economy. Washington's timber industry, along with its proximity to the Pacific Ocean, also played a key role in the development of ports and transportation networks, which allowed timber products to be exported globally. The growth of the railroads, shipyards, and other transportation networks followed in the wake of intensive timber harvesting, creating a powerful industrial economy. As Seattle and the surrounding areas became the epicenter of timber production, the state's economy flourished. For decades, timber was the cornerstone of the region's prosperity.

However, as the world has grown more environmentally conscious in the last several decades, the traditional timber industry has faced many challenges. Unsustainable logging practices and deforestation concerns prompted a call for a different approach to the work. Today, the demand for timber remains strong, and we are moving into a more sustainable relationship with the forests. Simultaneously, we are recognizing the power of wood to be used as a substitute for energy intensive and carbon-emitting structural materials.

This is where the new frontier of mass timber comes into play. Today, we find ourselves at a crossroads where the timber industry, once defined by traditional methods, is evolving into something even more revolutionary with the development of cross-laminated timber (CLT). Utilizing products such as CLT, mass timber construction is not just reshaping construction, but paving the way for a more sustainable, carbon-neutral future while creating jobs, spurring economic growth, and supporting the state's industrial and architectural innovations.

CLT is an engineered wood product that has been hailed as a breakthrough in sustainable building, offering a new way to utilize the region's rich forest resources while dramatically reducing carbon emissions from traditional construction. A shift to mass timber is critical for Washington's ambitious goals of achieving carbon neutrality in the coming decades.

Mass timber is not just a material; it represents a new vision for the state's future, combining the historical legacy of timber production with cutting-edge innovations in architecture and construction. As a renewable resource, mass timber is part of the solution to reducing the carbon footprint of our built environment. When sourced and produced sustainably, mass timber buildings can sequester carbon, locking away greenhouse gases that would otherwise contribute to climate change.

" Utilizing products such as CLT, mass timber construction is not just reshaping construction, but paving the way for a more sustainable, carbon-neutral future while creating jobs, spurring economic growth, and supporting the state's industrial and architectural innovations. "

The Canyons, LSW Architects
Photo: © Marcus Kaufmann Photography

The production of mass timber also uses far less energy than traditional construction materials like concrete and steel, making it a key component in Washington's transition to a carbon-neutral economy.

Beyond its environmental benefits, mass timber has the potential to invigorate the state's economy and provide a pathway to future job growth. From blue-collar construction industry jobs in the assembly and erection of mass timber buildings to white-collar jobs in architectural design and engineering of carbon-neutral buildings, the industry holds tremendous promise for diverse job creation. The growth of mass timber manufacturing could revitalize rural communities in the state's timber-producing regions, such as the Olympic Peninsula, creating opportunities for local manufacturing across the region. Investment in the development of mass timber production facilities and the necessary infrastructure to support the industry is critical to the state's economic future.

This investment will also help foster innovation in construction techniques. The ability to build mass timber skyscrapers, residential buildings, and even single-family homes represents a new era for the construction industry. For Seattle and its neighboring cities, mass timber offers a more efficient, sustainable way to build for the growing population. It opens new possibilities for housing production, from small accessory dwelling units (ADUs) to large-scale transit-oriented development (TOD) projects. Mass timber allows for faster construction timelines, which is essential in addressing the housing crisis that many cities across the U.S. are currently facing. Whether for mid-rise apartment buildings in Seattle or sustainable affordable housing projects in rural communities, mass timber provides a scalable solution that can meet the housing demands for urban and rural communities across the region.

What's more, the integration of mass timber into the design and construction of tall buildings, including mass timber towers, is breaking new ground in architectural design. Washington, a region known for its innovative architectural firms and design-driven approach to construction, is poised to lead this charge.

Mass timber provides a unique material aesthetic, warmth, and versatility that cannot be replicated with traditional construction materials. As architects and builders increasingly turn to mass timber, Washington could position itself at the forefront of a global movement toward sustainable building practices.

Investing in mass timber represents a chance to honor the region's timber roots while propelling the state toward a more sustainable, carbon-neutral future. Washington's timber industry has always been a powerful economic engine, and the mass timber sector offers the potential to continue that legacy while aligning with a green energy and materials strategy and a carbon neutral future. Supporting the emerging mass timber industry will strengthen our economy, reduce global carbon emissions, create green jobs, and improve the quality of life for residents in both urban and rural communities. Mass timber is part of the sustainable future that I want to see for myself, my family, and the diverse communities of which we are all a part.

This book outlines a vision for how we can invest in and see a sustainable vision forward, one that leans into our housing needs for the state and the region.

I am grateful to the leadership and investments of Washington Governor Bob Ferguson, Policy Director Sahar Fathi, Housing Senior Policy Advisor Nicholas Carr, City of Seattle Mayor Bruce Harrell, Office of Economic Development Director Markham McIntyre, Manufacturing and Maritime Strategic Advisor John Persak, and Washington Mass Timber Accelerator Executive Director Erica Spiritos. Their vision, their efforts, and their commitment in partnership with state, city, and industry leadership makes me hopeful for our collective future.

The Canyons, LSW Architects
Photo: © Jeremy Bitterman Photography

Introduction

Stronger, Faster, Greener: Mass Timber Housing in Action

The mass timber industry is evolving rapidly, reshaping the way we think about building design and construction. Once a niche material, mass timber has rapidly gained acceptance across the architectural and construction industries, thanks to its remarkable versatility, sustainability, and economic advantages. With advancements in technology and updates to the International Building Code (IBC), including allowances for taller structures currently up to 18 stories, mass timber is poised to transform skylines and communities alike.

Mass timber offers a compelling suite of benefits that make it a smart choice for developers, institutions, and private clients alike:

- **Revenue Generation:** Mass timber buildings offer opportunities for increased density, faster speed to market, and enhanced leasing velocity due to the beauty of exposed wood.
- **Streamlined Construction:** Harnessing the potential of prefabrication to reduce construction timelines, mass timber buildings are erected quickly, quietly, and with minimal waste generated on-site.
- **Carbon Reduction:** A renewable material sourced from sustainably managed forests, mass timber reduces reliance on high-carbon materials and stores carbon throughout its lifecycle.
- **Building Performance:** Mass timber buildings offer durability, thermal comfort with energy efficiency, fire-resistance, and higher indoor air quality due to a reduced reliance on finish materials.
- **Health and Wellness:** Mass timber buildings enhance occupant well-being by fostering connections to natural materials. Research links such environments to improved cognitive function, reduced stress levels, and overall psychological benefits.

The state of Washington has emerged as a leader in this movement, with forward-thinking policies that enable mass timber's use in taller buildings. However, broader adoption will require continued collaboration among architects, developers, policymakers, and builders as we co-create a better way to build.

This Mass Timber Housing look book celebrates the vast potential of mass timber in housing projects throughout the Pacific Northwest, showcasing examples across categories such as modular and custom single-family homes, accessory dwelling units (ADUs), cluster housing, townhome, low- rise and mid-rise developments, tall timber housing, and skyscrapers. These projects — both built and unbuilt — demonstrate the material's adaptability and its ability to meet diverse housing needs. While the focus is on Washington State, the lessons and inspiration drawn from these projects resonate across North America and beyond. The projects in this look book demonstrate what is possible.

The next step is yours.

CLT Townhome Building Kit, Green Canopy Node
Photo: © Inside Spokane Photography

Meet Washington's Mass Timber Manufacturers

Cascade Joinery • Bellingham, WA

FABRICATOR

For 33 years, Cascade Joinery has been crafting timberwork for high-end, commercial, residential, and municipal buildings, in a vast range of architectural styles. Today, we're one of the Northwest's leading producers of structural and decorative crafted timberwork, providing creative solutions to complex structural challenges. We believe in Mass Timber, and we're devoted to, and passionate about, delivering on it. From design-phase consultation to fabrication and on-site installation, we're by your side to manifest the most ambitious Mass Timber projects.
For more information, contact: Allen Stoltzfus, Sales Engineer
allen@cascadejoinery.com • *cascadejoinery.com*

Composite Recycling Technology Center (CRTC)

MASS TIMBER PANELS (CLT)

The CRTC Building Innovation Center was established to provide mass timber-based housing solutions to rapidly deployable military housing, emphasizing durability and protection. With access to vast stands of rapidly growing coastal western hemlock on the Olympic Peninsula, CRTC-BIC is the first entity worldwide to utilize thermal modification to stabilize and enable this underutilized species in CLT. ACLT - Advanced Cross Laminated Timber, is a CLT product that uses thermal modification (TM) of the lamstock in place of kiln-dried lumber. The TM process imparts improved dimensional stability as well as increased resistance to mold and mildew attack. Sourcing our primary lumber supply from the Makah Tribe, we have expanded to provide tribal and other affordable single-family modular detached homes.
For more information, contact: Glenn Ellis Jr, Housing Business Manager
(505) 274-9198 • gellis@crtc-wa.org • *compositerecycling.org*

Green Canopy Node • Seattle, WA

PREFABRICATED MASS TIMBER HOUSING

Green Canopy NODE builds sustainable housing using offsite and traditional methods. We service developers in Washington and Oregon to acquire, plan, and construct their low rise multifamily and multi-unit projects. We innovate construction methods and components to increase cost control, reduce timelines, and improve sustainability. Green Canopy NODE offers a catalog of mass timber modular houses, townhomes, and apartments that are pre-designed and customizable to deliver carbon negative housing for developers and neighborhoods.
For more information, visit: *greencanopynode.com*

Mercer Mass Timber • Spokane Valley, WA

COMPLETE MASS TIMBER STRUCTURES

As a global mass timber manufacturer with operations in Washington, we provide high-performance prefabricated solutions for residential construction at all scales. Our vertically integrated approach—combining digital design, off-site manufacturing, and construction services—reduces project risk, accelerates schedules, minimizes site disruption, and enhances energy performance. From modular homes to mid- and high-rise developments, we enable sustainable, innovative, and resilient housing solutions.
For more information, contact: clt@mercerint.com • *mercermasstimber.com*

Tieton Cabin Co. • Tieton, WA

PREFABRICATED MASS TIMBER HOUSING

Tieton Cabin Company, located in Tieton, WA, builds ready-made, thoughtfully designed one and two bedroom small homes optimized for versatile functionality as guest accommodations, income properties, or personal retreats. Robustly built with Cross Laminated Timber, Rockwool installation, steel frames and premium fixtures for energy efficiency, durability and performance, their elegant simplicity offers modern, timeless warmth with essential features. IBC compliant and WA State L&I certified, these homes arrive complete and install in one day with minimal disruption, ready for immediate use.
For more information, contact: Alex Mondau, Director of Strategy • 509-673-1030
alex@tietoncabinco.com • *tietoncabinco.com*

Vaagen Timbers • Colville, WA

COMPLETE MASS TIMBER STRUCTURES

Vaagen Timbers is a leader in sustainable mass timber manufacturing, transforming small-diameter logs from forest restoration into premium glulam and cross-laminated timber (CLT) products. By sourcing wood from within 100 miles of their Colville, WA (USA) facility, they reduce emissions and support local economies. Their precision-engineered glulam beams offer exceptional strength and beauty, meeting stringent ANSI/APA standards. Choosing Vaagen Timbers means investing in resilient, low-carbon buildings while actively contributing to healthier forests and wildfire pcrevention. From Forest to Frame — with purpose.
For more information, contact: Joel D. Rohrs, Executive Vice President
(206) 708-3260 • *vaagentimbers.com*

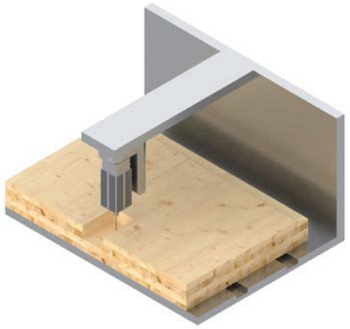
Mass Timber in Washington

Manufacturers Map

Mass Timber Products

Glue Laminated Timber (Glulam)

Fabrication



Mass Timber Panels (CLT, DLT, MPP)

Prefab Mass Timber Housing

Connectors and Hardware

Complete Mass Timber Structures

Typology 1
Modular Detached Homes

What are modular detached homes?

Ranging in size from 400-1400 square feet, modular detached homes are partially or fully built off-site, then transported to site and assembled on a permanent foundation. Though delivered as flat-pack panelized systems or full volumetric modular construction, designs adhere to the same local and state building codes as traditional site-built houses.

Mass Timber is treated much the same as lightwood frame by residential code, with the exception of lateral design of a structural system utilizing CLT shear walls in a seismic zone. The most recent version of the referenced standard within the International Residential Code, Special Design Provisions for Wind and Seismic (SDPWS) , uses more conservative design values than equivalent plywood shear walls. Architects and designers should be aware of the impact of shear wall aspect ratios and how it affects the placement of openings.

Sierra Houses, atelierjones
Photo: © Lara Swimmer Photography

Why mass timber for this typology?

Modular detached mass timber homes are high-performing and rapidly deployable, with the warmth and beauty of natural wood. Solid timber construction increases durability and longevity and creates an airtight envelope, resulting in lower energy costs. CLT's fire resistance makes it well-suited for Wildland Urban Interface (WUI) zones. As CLT also serves as a finished interior surface, these homes feature improved indoor air quality for healthier living environments free from off-gassing and synthetic materials.

The exposed beauty of the timber panels not only reinforces the feeling of living with nature and associated positive outcomes, but also eliminates the least durable of all exposed building materials – sheetrock. For urban units with high occupant turnover this greatly enhances the value to the owners, while the solid wood walls provide a refuge away from the aggressive noise and chatter of everyday city life.

What are the opportunities to scale?

We can scale the delivery of modular detached mass timber homes to reach a broad demographic of homeowners through thoughtful and flexible designs that can be easily repeated across urban and rural communities. As repeatable standardized designs are deployed, benefits can be compounded and costs reduced significantly.

This solution to our housing crisis is enabled by distributed investments into small, nimble facilities tied to sustainable, local forestry. By keeping the supply chain regional, we reduce transportation emissions, support local jobs, and strengthen the mass timber industry as a key player in Washington's green economy.

The rapid delivery of mass timber housing makes it a good fit for rural areas with labor shortages, as well as for post-disaster rebuilding. In the wake of a fire or flood a mass timber pre-approved permit design can greatly reduce the time and cost investment for homeowners looking to rebuild. Total build time including foundation is days to a few weeks versus six months or more with traditional construction.

Wet-core prefab & on-site mass timber assembly
Construction photos courtesy of atelierjones

Sierra House 1.0

Greenville, CA

House 1 is a 780 SF lofted accessory dwelling unit (ADU) designed around flat-pack CLT and a modular wet core containing an efficient kitchen and bathroom as well as much of the homes' mechanical and electrical systems. As part of the rebuilding effort in Greenville, California following the 2021 Dixie Fire, this fire-hardened home utilizes mass timber construction in combination with passive design and Wildland Urban Interface design guidelines. The 1-bedroom format provides a missing typology in rural areas. The unit is available through Pre-Approved Master Permit in Plumas County and is available to residents at a greatly reduced fee.

Website: Sierra Houses

PROJECT TEAM

Sierra Institute
OWNER

atelierjones
ARCHITECT

LightsCreek Construction
CONTRACTOR

Harriott Valentine Engineers
STRUCTURAL

Sugarpine Engineering
MEP ENGINEER

Photos: © Lara Swimmer Photography

Sierra House 2.0

Greenville, CA

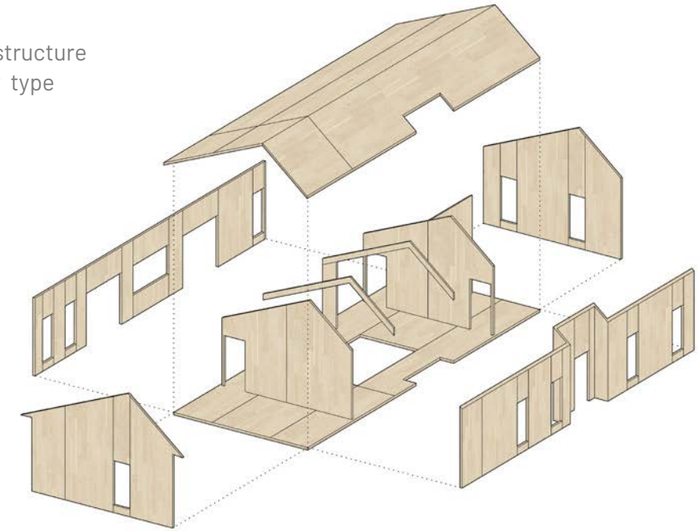
The 2021 Dixie Fire destroyed 1,000 structures, including 660 homes. Three small, 590, 780 and 990 SF modular mass timber prototype houses were developed to advance a new vision for community rebuilding: fire safe structures built with locally sourced materials, allowing denser walkable communities while supporting sustainable forestry and the local economy.

The houses were designed with a prefabricated modular wet core containing kitchen, bathroom, mechanical, and electrical systems. CLT walls, floors, and roofs arrived as flat-pack, prefab elements and were assembled around the wetcores. The structures were erected rapidly on site where minimal local labor was available. This approach can be deployed at scale.

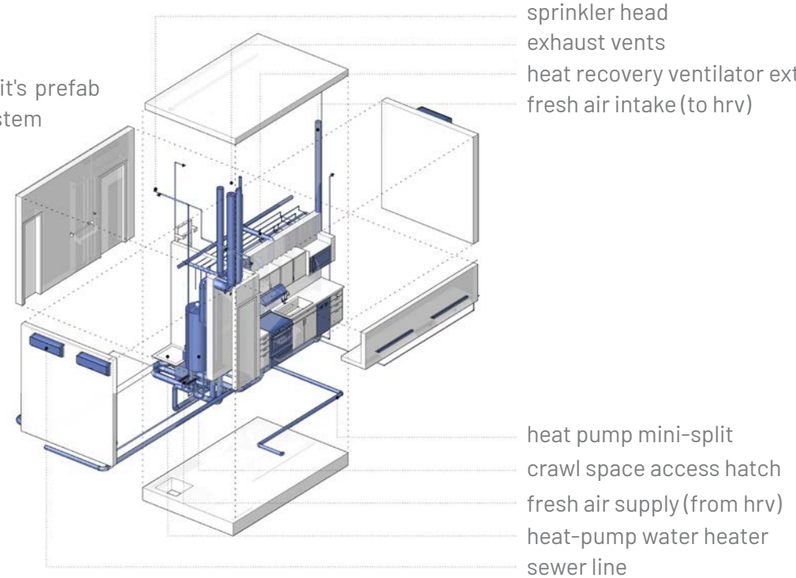
Completed in 2023 • Website: Sierra Houses

Diagrams courtesy of atelierjones
Photo: © Lara Swimmer Photography

CLT STRUCTURE
Panelized modular structure
for a 3 bedroom unit type



MEP SYSTEM
Internal view of the unit's prefab
volumetric wet core system



PROJECT TEAM

Sierra Institute
OWNER

atelierjones
ARCHITECT

LightsCreek Construction
CONTRACTOR

Harriott Valentine Engineers
STRUCTURAL ENGINEER

Sugarpine Engineering
MEP ENGINEER

SIERRA HOUSE COMPONENTS

Houses are designed with repeatable assemblies and components that allow for efficiencies of scale, making mass timber cost competitive for smaller homes.

Fire-hardened weathering steel + aluminum shell

mass timber structure

modular wet core

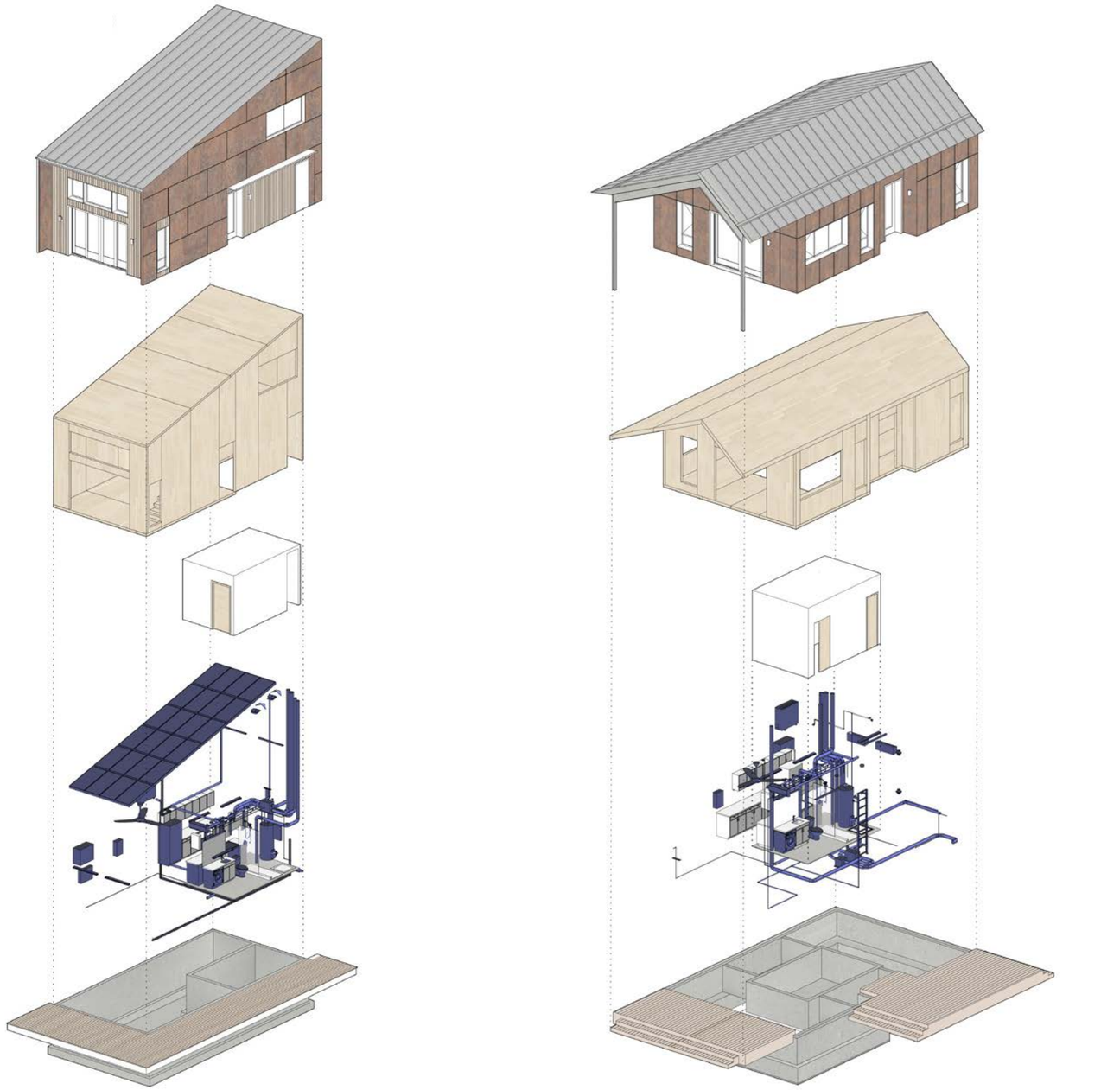
mechanical + electrical + plumbing + fire

foundation + decks

Sierra House 1.0 - 1 bedroom home

Sierra House 2.0 - 2 bedroom home

Sierra House 3.0 - 3 bedroom home



Diagrams courtesy of atelierjones.

Makah Home

Neah Bay, WA

Upending narratives that CLT requires manufacturing investments of $50-100 million, and that CLT small homes are not cost competitive with stick built, this initial tribal housing project is a cute 2BR/1Ba, 965 SF + 455 SF Lanai home. The Makah Tribe supplies milled western hemlock for the Composite Recycling Technology Center's (CRTC) small-panel Advanced CLT (ACLT) products. ACLT is composed of thermally modified wood and carbon fiber strips for a robust wall panel. Dimensional stability provided by CRTC's thermal modification enables using undervalued species usually unsuited for CLT processing.

Website: CRTC Building Innovation Center

At one-tenth the cost of typical CLT plants, this model can be duplicated in rural regions with undervalued timber species, providing local jobs and affordable, durable and elegant homes. The Makah home was designed by the CRTC and Makah, recognizing livability in a remote location with harsh weather conditions, cost-effective design for panelized modular construction, and elimination of sheet-rock and cavity insulation. The Makah Home demonstrates that mass timber single-family housing is a solution that extends well beyond middle to high-end homes.

PROJECT TEAM

CRTC & Makah Tribe
DESIGN

123WestDesignCollective
STRUCTURAL ENGINEER

Makah Tribe
WOOD SOURCING

CRTC
ACLT

Rendering courtesy of Mark O'Brien / CRTC

Friday Harbor Wave

Friday Harbor, WA

Nestled in Friday Harbor, the Wave embodies modern prefabrication and site-responsive design. Using Tieton Cabin Co.'s "Hat Trick" approach, a factory built cabin is customized, then crowned with the "Wave" roof—both a visual link to the sea and protection from shifting island weather. Washington State's Factory Assembled Structure (FAS) program streamlines compliance, accelerating permitting and assembly. Delivered as a complete kit, the home is craned onto its foundation for swift installation. Designed for efficiency, beauty, and sustainability, the Wave seamlessly integrates with its surroundings while ensuring durability and architectural integrity.

Website: Tieton Cabin Co.

Renderings courtesy of Notion Workshop

PROJECT TEAM

Indigo Architecture & Interiors
ARCHITECT

Tieton Cabin Co.
PRE-FABRICATION

Mercer Mass Timber
CLT

FraserWood
GLULAM

PathHouse

PathHouse is a standardized, prefabricated, and volumetric modular building system utilizing sustainable mass timber materials, that can be constructed and deployed at a scale required to help address North America's ever mounting housing crisis. PathHouse provides pre-designed, pre-approved (currently in process), and warrantied housing modules that dramatically reduce design, permitting and construction time. PathHouse modules can be configured in a multitude of ways to fit most project needs. By fully standardizing unit design and offering a limited selection of module types, PathHouse aims to solve the problems that slow down other, more conventional, modular housing manufacturers.

Website: On Demand Modular Housing with Mass Timber

Photo: © Riff Creative
Rendering courtesy of LSW Architects

PROJECT TEAM

US Forest Service
SPONSOR

LSW Architects, PC
ARCHITECT

Mods PDX
PRE-FABRICATION

PAE Engineers
STRUCTURAL

Generate
AEC TECHNOLOGY

Sustainable Northwest
PROCUREMENT

SmartLam
CLT

Freres Mass-Ply
MPP

Baker Woods

Bainbridge Island, WA

Baker Woods is pioneering urban infill by integrating multiple Detached Accessory Dwelling Units (DADUs) alongside new construction single-family homes. These DADUs, built from solid cross-laminated timber (CLT) panels and utilizing Green Canopy NODE's prefabricated building kits, offer an efficient, low-carbon housing solution. Additionally, CLT's natural warmth and biophilic qualities create a healthier, more inviting living space. The exposed wood aesthetic of mass timber beautifully complements the densely wooded site, seamlessly blending modern housing with the surrounding natural landscape. By leveraging mass timber DADUs, Baker Woods maximizes density while maintaining high-quality, energy-efficient homes—offering a scalable, cost-effective approach to urban development.

Website: Green Canopy NODE

Renderings courtesy of Green Canopy NODE

PROJECT TEAM

Green Canopy NODE
DESIGN & PRE-FABRICATION

Mercer Mass Timber
CLT

Elm Street Studio • Tieton, WA

Tieton Cabin Company designed a 300 SF Cross-Laminated Timber (CLT) home to maximize function and aesthetics. Clad in weathering steel, it complements its landscaped yard with a rugged, modern appeal.

PROJECT TEAM

Indigo Architecture & Interiors
ARCHITECT

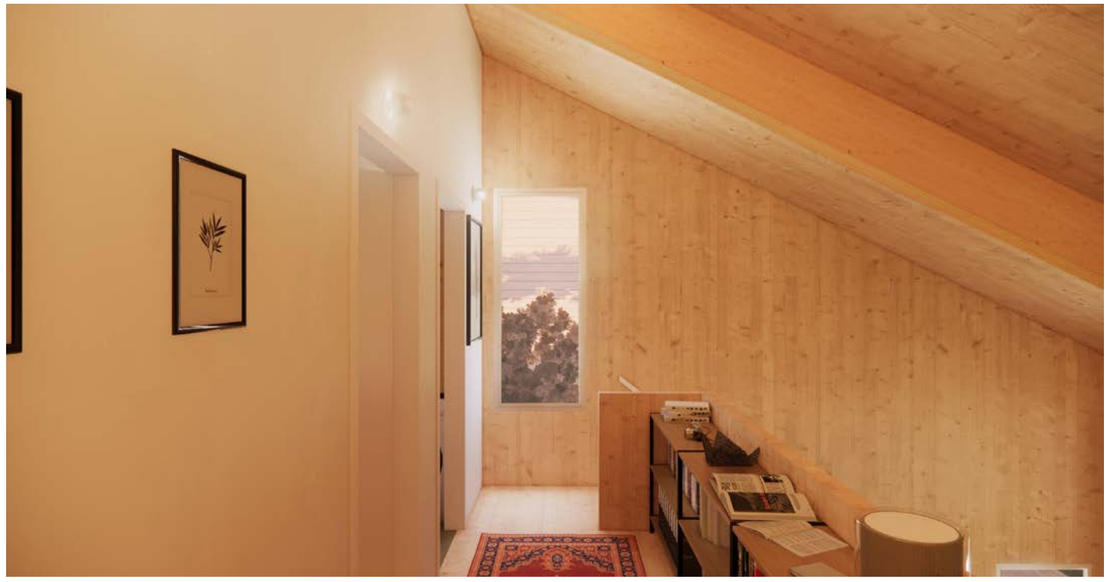
Tieton Cabin Co.
PRE-FABRICATION

Mercer Mass Timber
CLT

Prefabricated utilizing CLT panels from Mercer Mass Timber ensures precision, sustainability and minimal site disruption. Inside, a full kitchen and queen bed create an efficient living space. Using Washington State's Factory Assembled Structure (FAS) program, these mass timber ADUs are factory-permitted, allowing statewide shipment with only local site planning approval required—offering a streamlined, durable, and low-maintenance housing solution. Everything you need—nothing you don't.

Website: Tieton Cabin Co.

Exterior Photo: © Sam McJunkin
Interior Photo: © Arturo Solorio



CLT House 1.0

Seattle, WA

House 1.0 is a compact 800 square foot 2-bedroom 1 bathroom home developed for the Seattle market. Developed under a Standard Plan, a pre-approval process for efficient permitting of repeatable projects, it is deployable as a backyard cottage or ADU, a stand-alone single-family home, duplex, or cottage court. House 1.0 is targeted to be attainable workforce housing for first-time homeowners or growing multi-generational families.

PROJECT TEAM

atelierjones
ARCHITECT

Harriott Valentine Engineers
STRUCTURAL ENGINEER

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MEP ENGINEER

CRTC
ACLT

The houses were designed with a prefabricated modular wet core that contain kitchen, bathroom, mechanical, and electrical systems. CRTC's innovative Makah-sourced locally thermally modified Western Hemlock CLT walls , floors, and roofs will arrive as flat-pack, prefab elements to be assembled around the wetcores. The structures can be erected rapidly on site with few hands. This approach can be deployed at scale in Seattle or across Washington State. *Standard Plan Permit Expected 2025.*

Renderings courtesy of atelierjones

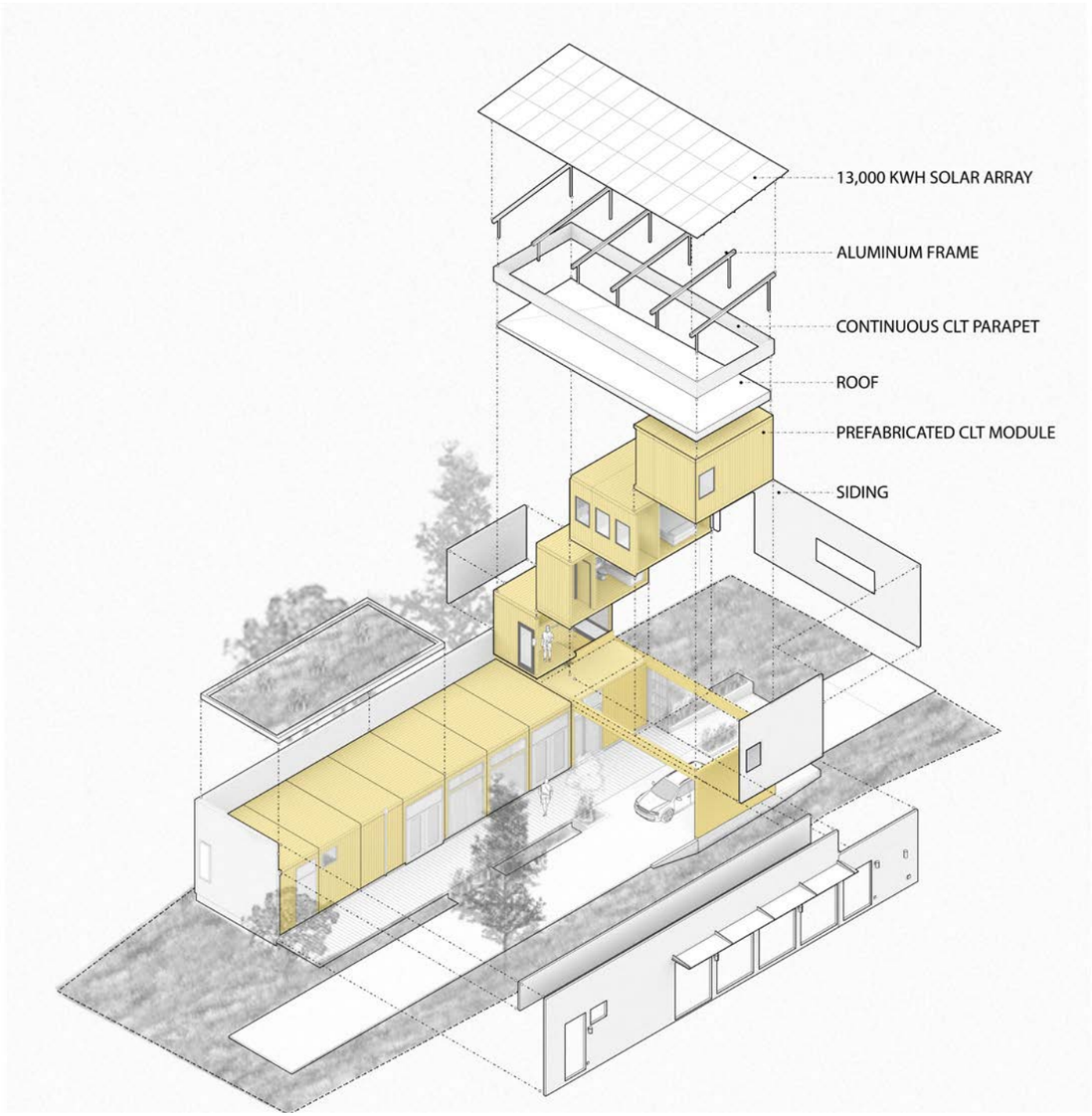
Matt's Place 2.0

Spokane, WA

Matt's Place is a prefabricated, modular, mass timber prototype designed to support patients and families navigating an Amyotrophic Lateral Sclerosis (ALS) diagnosis. The 1,500-square-foot home features a main-floor suite for patients and two upstairs bedrooms and a bathroom for family or caregivers. This separation of zones allows the patient to remain close to loved ones while preserving privacy and dignity. A carport and covered roof deck create weather-protected transitions from vehicle to wheelchair, encouraging safe movement and time outdoors. Cross-laminated timber walls and ceilings are built with modular joints that accommodate weather barriers and splines, while recessed outlets, accessible wiring, and plumbing chases streamline interior systems. Mass timber construction enhances the space by providing a warm, biophilic environment for patient well-being. The property is equipped with smart home technologies customized for ALS patients—such as control systems operable with eye movements—allowing for greater independence and ease of use.

Website: Matt's Place 2.0

Exterior Photo: © Patrick Martinez
Diagram courtesy of Miller Hull Partnership



PROJECT TEAM

Matt Wild, Theresa Whitlock-Wild
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Miller Hull Partnership
ARCHITECT OF RECORD

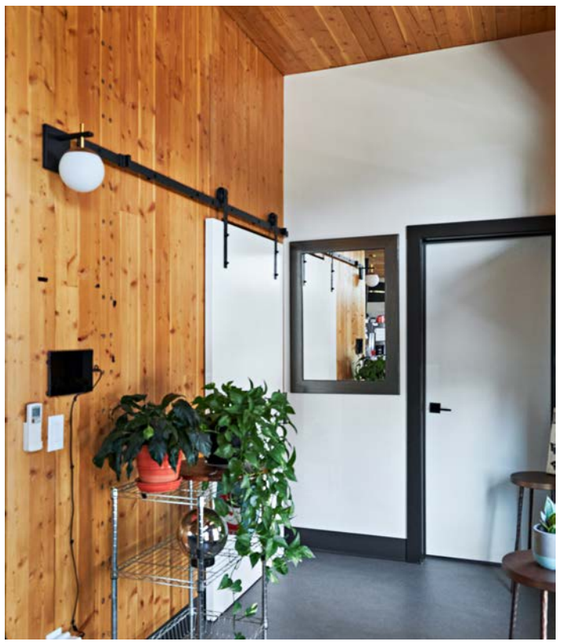
DCI Engineers
STRUCTURAL & CIVIL ENGINEERING

Baker Construction
CONTRACTOR

Vestis Manufacturing
PREFABRICATOR

Vaagen Timbers
CLT

1 On-site installation of prefab walls



2 Entry

3 Family Bedroom

4 Bathroom for ALS Patients

5 Prefab CLT wall assembly

6 Living Space

7 Bedroom for ALS patients with direct bathroom access

MASSTAC

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