



CRTC Overview



CRTC

- 501(c)3 Not for profit
- Started in 2015
- Great support from the EDC, Port, City, County, State and Federal
- 34 team members
- About \$7M worth of capital equipment
- Composites Business & Advanced Forest Products Business



Culture - It All Starts With The Team

- Inc Magazine - Best Small Places To Work - 2024



Carbon Fiber Prepreg

- As strong as steel but about 25% of the weight
- Would normally go into a Boeing 777X or 787
- Something is not right about it
- Destined for landfill - durability
- Still virgin material



Products

- SwiftNet portable pickleball net
- ProNet semi-permanent pickleball net
- Orthotic braces
- Park benches



PORTABLE PICKLEBALL NET SYSTEM

A portable net system transforms almost any indoor or outdoor space into a pickleball court within minutes. Have fun with the many possibilities!



Elevate your game with these innovative nets made with recycled aerospace grade carbon fiber, which is much stronger than steel at one-third of the weight. The Composite Recycling Technology Center (CRTC) in Washington state designs and manufactures these sustainable nets and other products with the mission to transform carbon fiber scrap - that normally ends up in landfills - into uses with a positive impact on people's lives and the environment.

"Half the weight, half the time, half the hassle...the SwiftNet® is the portable net for serious players" - Glen Peterson, 50 Pro Pickleball Player

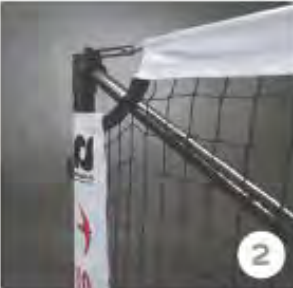
Composite Recycling Technology Center
2220 West 18th St.
Port Angeles, WA 98363
dshillington@crtc-wa.org
Office: 360-819-1210

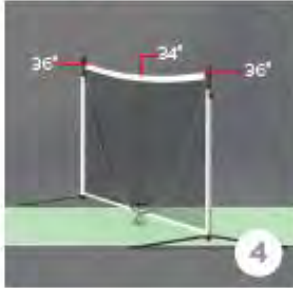
www.swiftnet.pro

 **CRTC**
www.crtc-wa.org



SWIFTNET® PORTABLE PICKLEBALL NET SYSTEM FEATURES





1. Lightweight at only 15 pounds versus steel frame net systems weighing over 30 lbs. With only six main parts, easily assembled and moved by one person.
2. Main structure made of recycled aerospace grade carbon fiber that will not bend or rust and is very strong and durable.
3. Sets up in under three minutes - get playing faster!
4. Automatically sets and holds at the true 36" and 34" height. Does not sag over time as the carbon fiber pole will not fatigue.
5. Provides the stiffness and top tape response of a tournament net with a simple tensioning mechanism.
6. Includes a convenient carry bag.

Indoor and Outdoor use.

All carbon fiber components are made and assembled in the USA.

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Trident Bench



- Carbon fiber bench planks and support
- Great in wet and chlorine applications
- Easy to clean
- Pic from Shore Aquatic Center from 2020



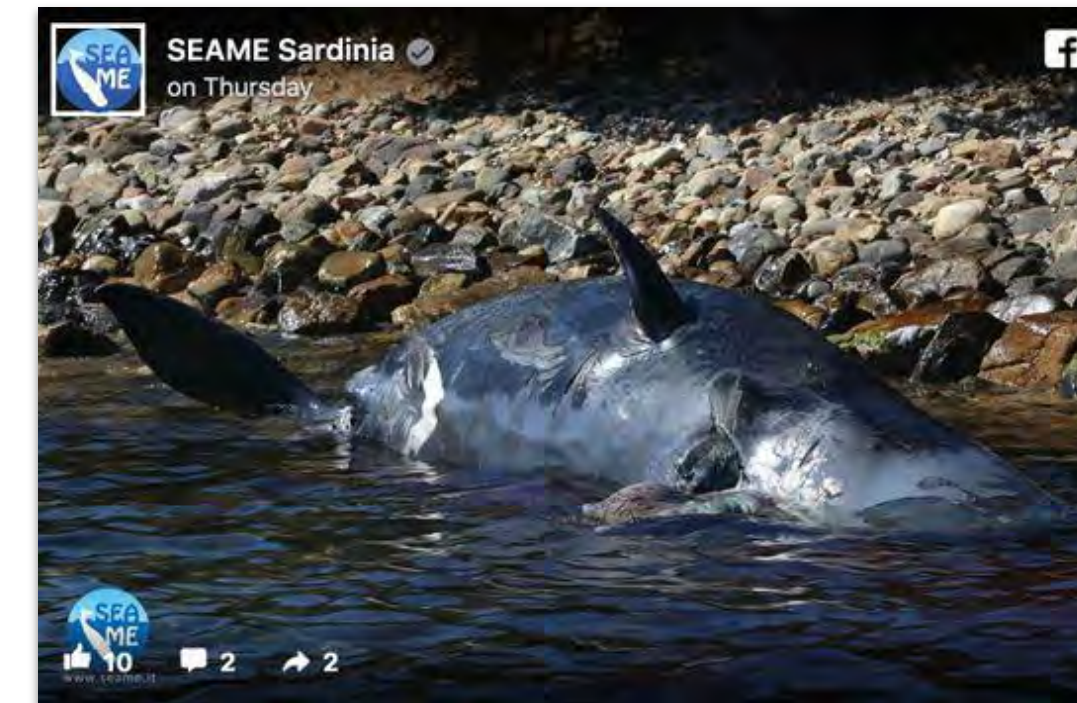
Trident Bench

- South Whidbey Island Aquatic Center
- Installation 4Q26



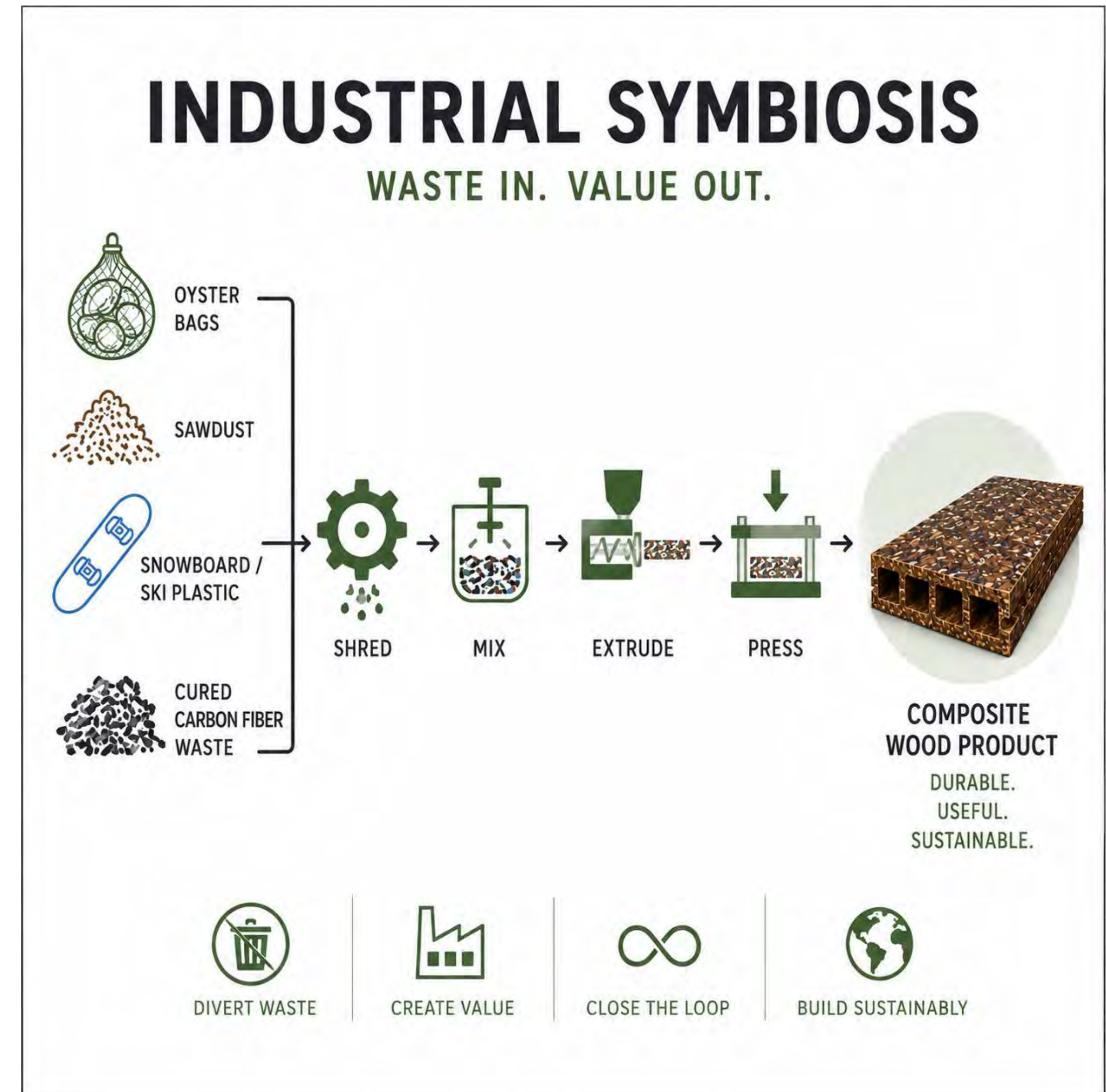
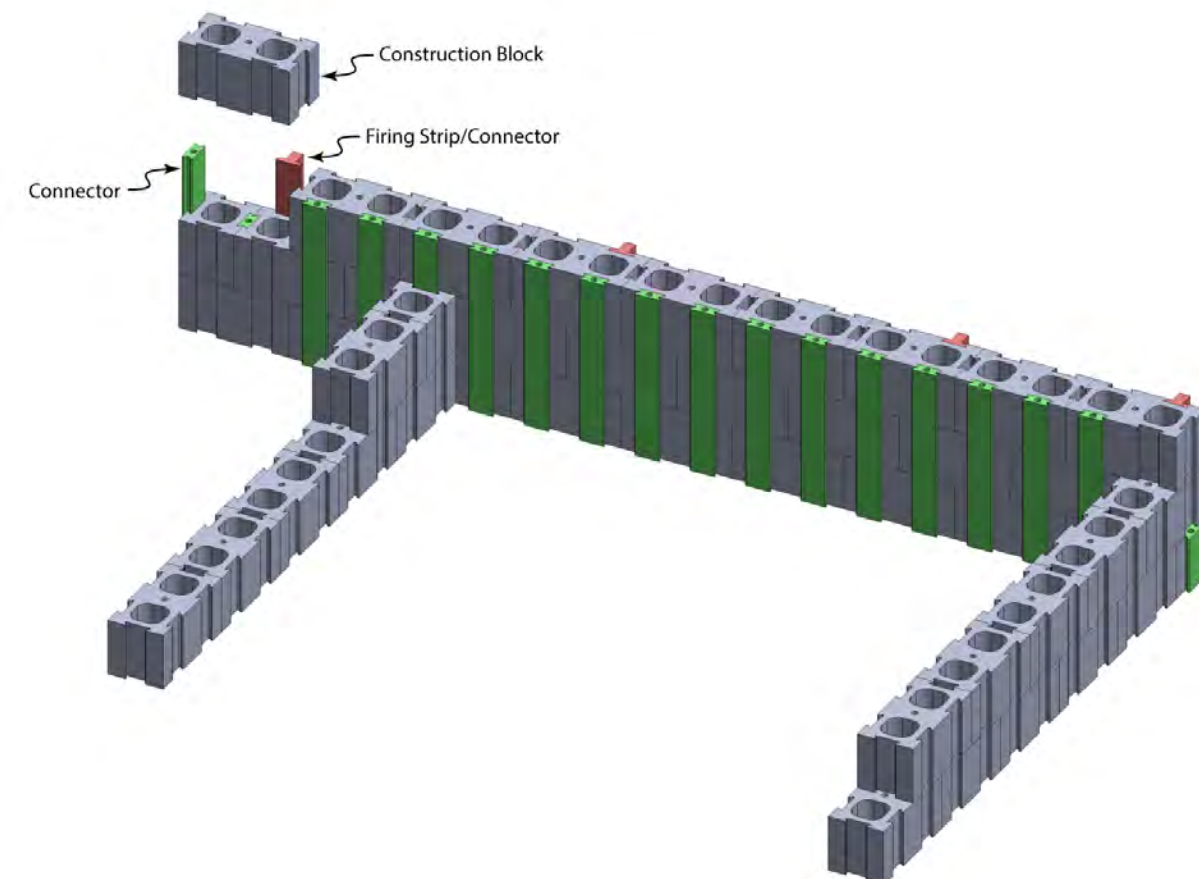
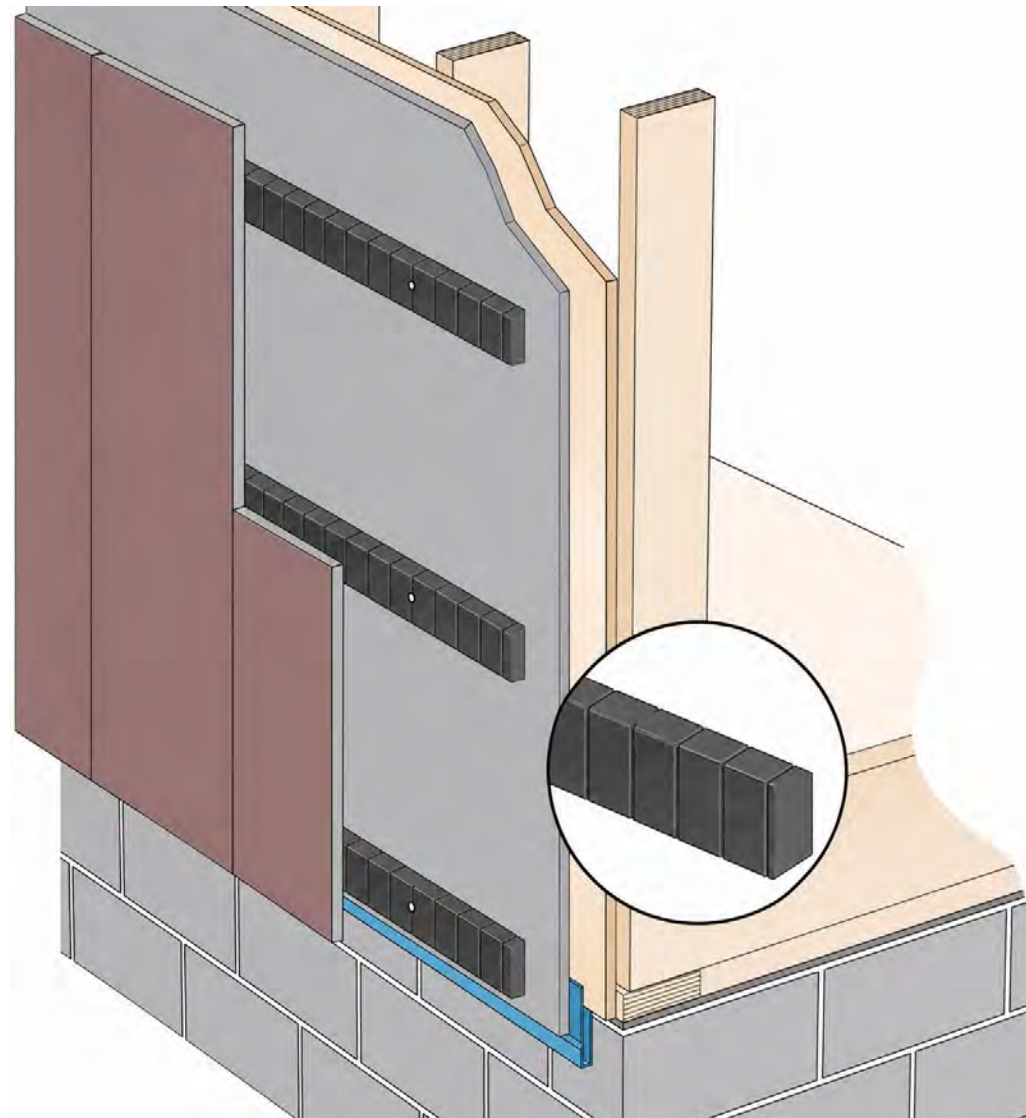
Marine Cable For Aquaculture

- Plastic rope is often used today
- It can degrade and shed over time
- It can entangle marine life or get ingested
- A carbon fiber cable does not shed or entangle



Industrial Symbiosis

- Shellfish bags
- Snowboard Waste
- Sawdust
- Carbon Fiber Waste



Wood Fiber - Makah Tribe Sawmill

- Built by the CRTC in one year; Grand opening May of 2024
- Operating well and continues to add capacity to meet demand
- Provides incoming lumber to the CRTC

Starting point - March 2023



Completed - March 2024



Thermal Modification

- About 80% of the Makah Forest is Hemlock
- TM allows us to use Coastal Western Hemlock as a building material
- Heat wood to about 400F under vacuum - remove oxygen
- Thickens cell walls, removes internal stresses
- Yields pressure treated wood performance without added chemicals



CRTC - Thermal Modification Unit



Thermal Modification Applications

- Siding
- CLT panels
- Interior feature walls
- Instruments



Siding

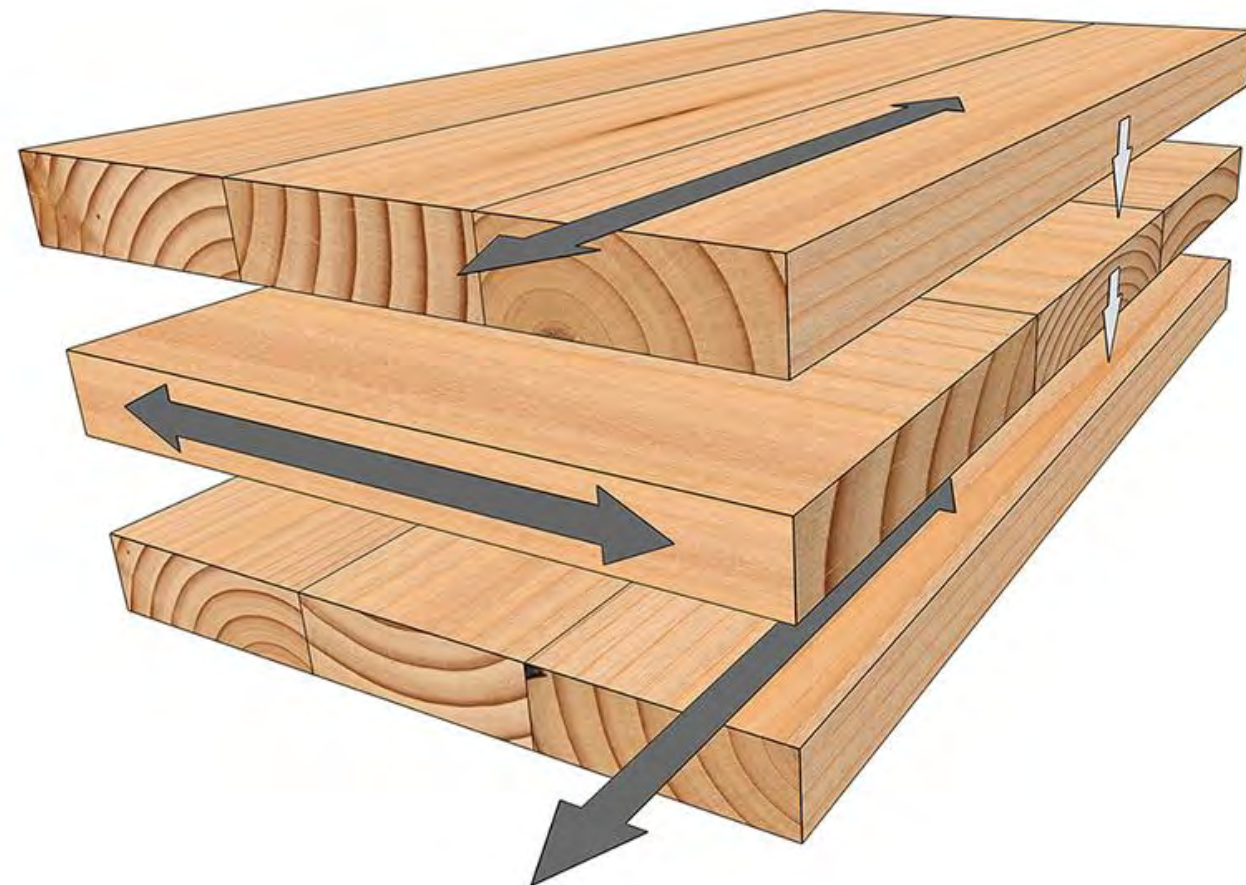


Housing Demand

- According to the Washington State DOC in 2025, the state will need to add **1.1 million homes** over the next 20 years to keep pace with population growth.
- That is over 50,000 homes a year on average
- Over 500,000 of the 1.1M homes need to be for lower income levels
- Innovation will be required
- We think mass timber is a part of the solution

ACLT

- Advanced Cross Laminated Timber panels
- 4' wide x 8', 10' and 12' lengths
- 3 ply of thermally modified coastal western hemlock
- This becomes your wall
- Used to build a home
- It is all machined to fit precisely together
- The kit then gets constructed at the job site



Engineered Housing

- Eliminates the need for framers at the job site
- Reduces the number of hours required for the trades on site
- Allows homes to go up much more quickly
- Allows for the bulk of the construction process to happen indoors
- Allows for standardization of the manufacturing process
- Creates a tight, durable home

BOLEH

- ***B**uilt **O**n **L**ot **E**ngineered **H**ome*



FRONT VIEW



MEP MODULE



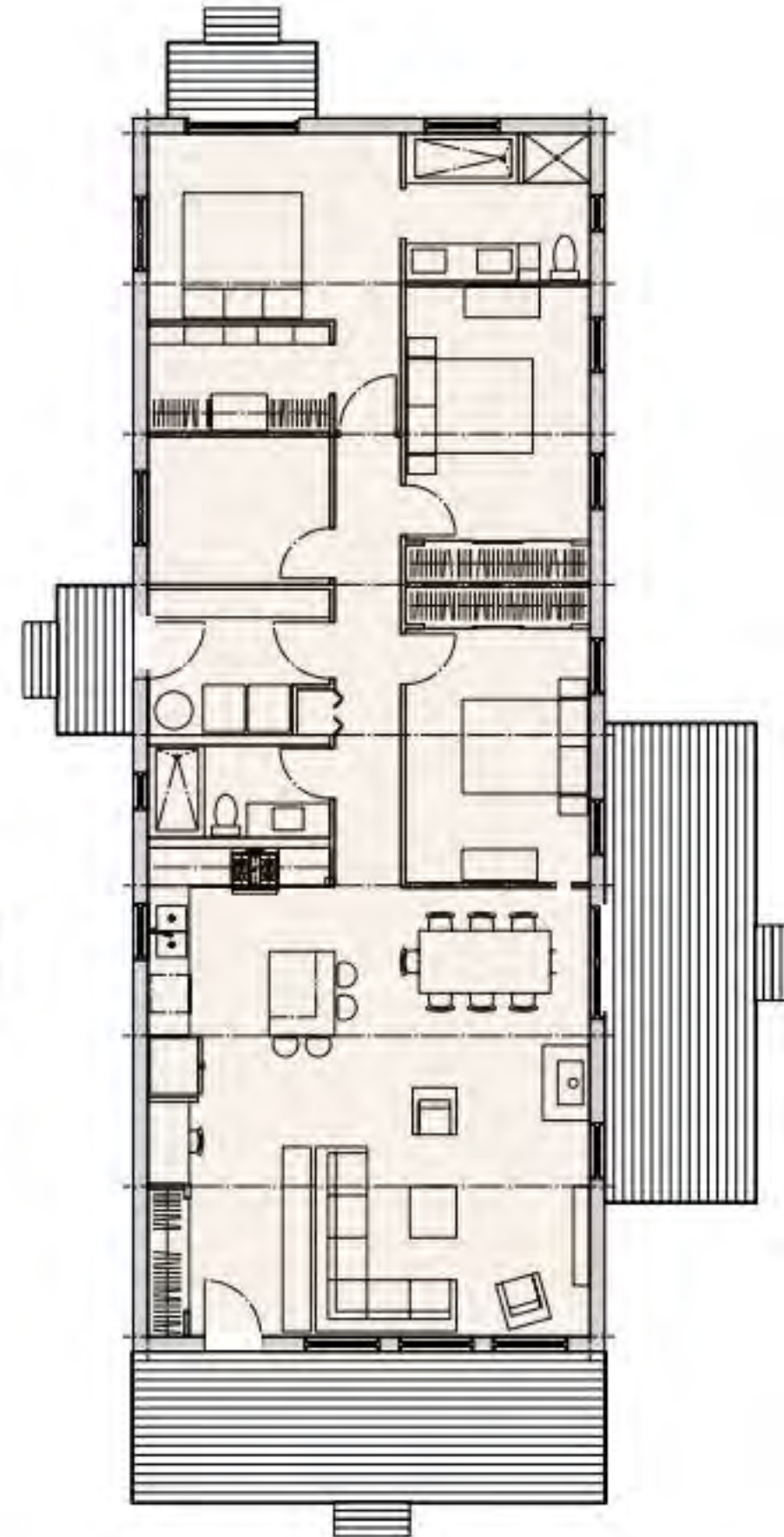
Brook Home
1 Bedroom - 1 Bath (384 SF)



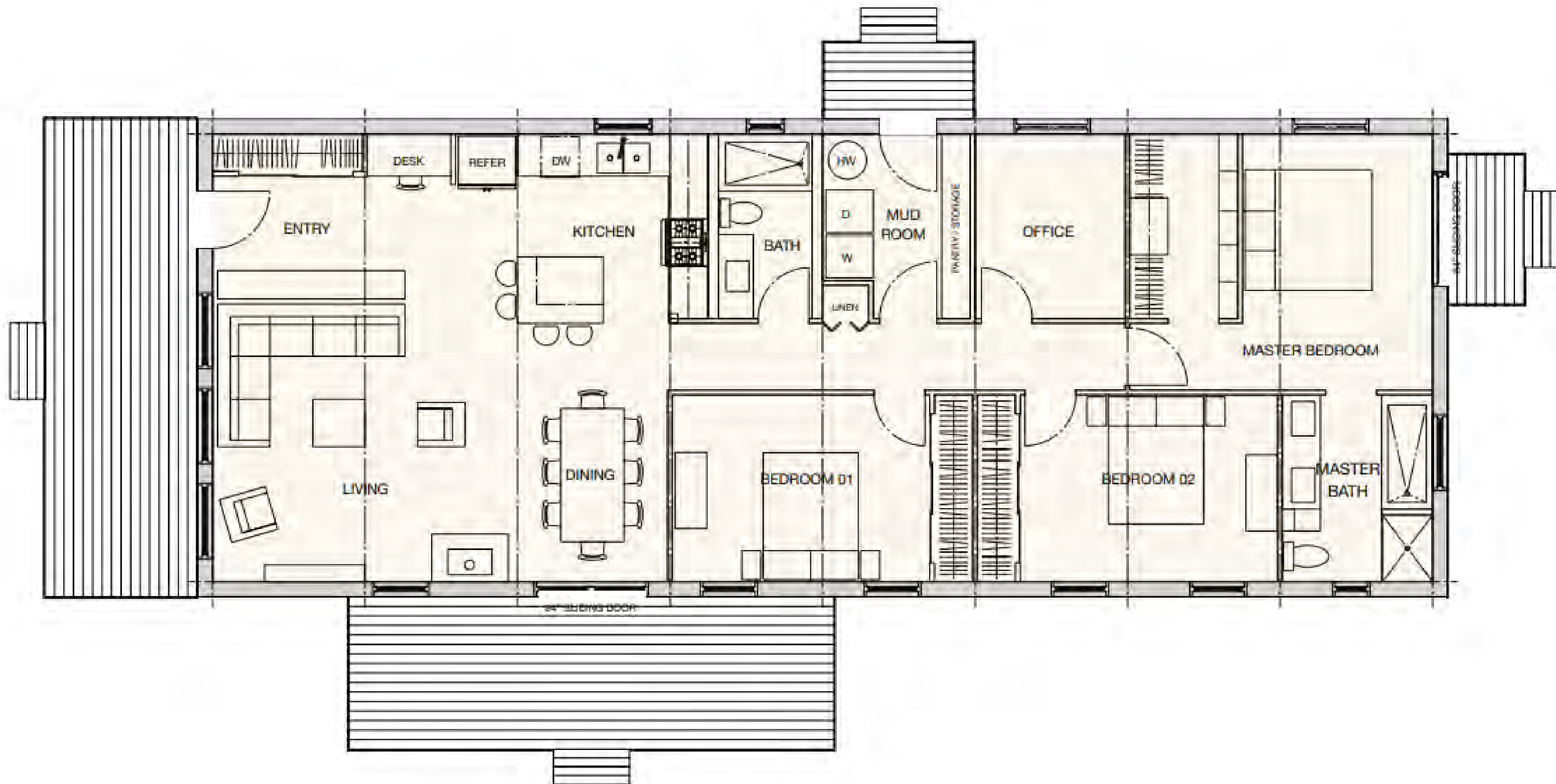
Creek Home
1 Bedroom - 1 Bath (576 SF)



Forest Home
2 Bedroom - 1 Bath (960 SF)



Mountain Home
3 Bedroom - 2 Bath (1536 SF)



Mountain Home

3 Bedroom - 2 Bath (1536 SF)

BOLEH Kit

- The Kit includes everything needed to build the home
- ACLT panels, windows, doors, flooring, roofing, siding, cabinets etc.
- The kit does not include the lot, foundation, services or installation
- Our target is for the cost of the home, installation and infrastructure to be no more than:
 - 30% of a family's income
 - 120% AMI (area median income)
- This requires a different approach when the desire is a quality home that lasts

BOLEH Construction

- We believe a crew of 5 can construct the house in 2 weeks
- We need to confirm this with the first house
- The first home will be built in Clallam County once permitted
- Expect to break ground 1Q27
- The Makah Tribe is needing many houses over the next few years
- Other tribes have expressed strong interest as well

Mobile Tribal Demo Unit

- This project was funded through the grant award the Clallam EDC received from the EDA. They were awarded a total of \$4.1M from the federal government that supports 14 projects over 3 years. This is one of the 14 projects.
- The unit is 384 sq.ft.
- It will provide tribes with the look and feel of a BOLEH
- We will construct it on a reservation to demonstrate the home
- We will later take it down and construct it on a different reservation
- The first installation is expected in Neah Bay in 4Q26

Mobile Tribal Demo Unit



DADU

- Detached Accessory Dwelling Unit
- Goes into the back yard of an existing home
- Creates rental space
- AtelierJones created the design - using the CRTC's ACLT panels
- The Clallam EDC applied for Evergreen Manufacturing Growth Grant funding in 2024 to support the design for the CRTC. The EDC was awarded state funding which was sourced from the Washington Climate Commitment Act. The CCA supports Washington's climate action efforts by putting cap-and-invest dollars to work reducing climate pollution, creating jobs, and improving public health. Information about the CCA is available at www.climate.wa.gov.

DADU

- This design was one of 15 winners in the ADUniverse contest
- Winners were selected by Seattle Office of Planning and Community Development (OPCD)
- Will become a pre-approved plan once Seattle has approved
- All Seattle permitting fees will be waived







Barracks Project

- Development project through the US military
- Create flat pack barracks with mass timber panels
- Started in 2022
- Vision – 2-12-24
 - **2** containers can be placed anywhere via helicopter or truck
 - **12** service people
 - **24** hours or less to construct
 - Can be taken down in even less time for reuse
- Uses the same thermally modified CLT panels as in a house
- RAD – Rapid ACLT Deployment



**Two 20-foot
containers create
a 640 s.f.
barracks**





Earthquake Simulation Testing

- Completed in November 2024
- 12,000 pounds of steel plates were added to the roof to simulate snow or sandbag load
- Barracks was shaken at progressively higher intensities



Fort Leonard Wood, MO

- Objective - Install a complete barracks in hot weather
- Fully finished unit - includes doors, metal roofing, flooring, insulation and siding
- The installation started 7/21/25 and finished 7/25/25
- 7 team members completed the construction in 21 work hours

Day 1 - Commence set up



Day 1 - Commence set up



Day 2 - Half of the roof is up & HVAC installed



Day 3 - Finish interior and add roof insulation



Day 5 - Finished interior



Day 5 – Building is complete



Arctic Deployment

- Cold weather deployment
- Fairbanks, AK – Feb 2026
- Minus 25F
- Team of 7 completed in 24 hours!











RAD – Rapid ACLT Deployment

- The RAD can be used in three primary segments:
 - Military
 - Commercial – large opportunity in Alaska
 - Residential - opportunity for quick erect housing or emergency shelters

Possible Commercial Application



Possible Commercial Application





Questions

