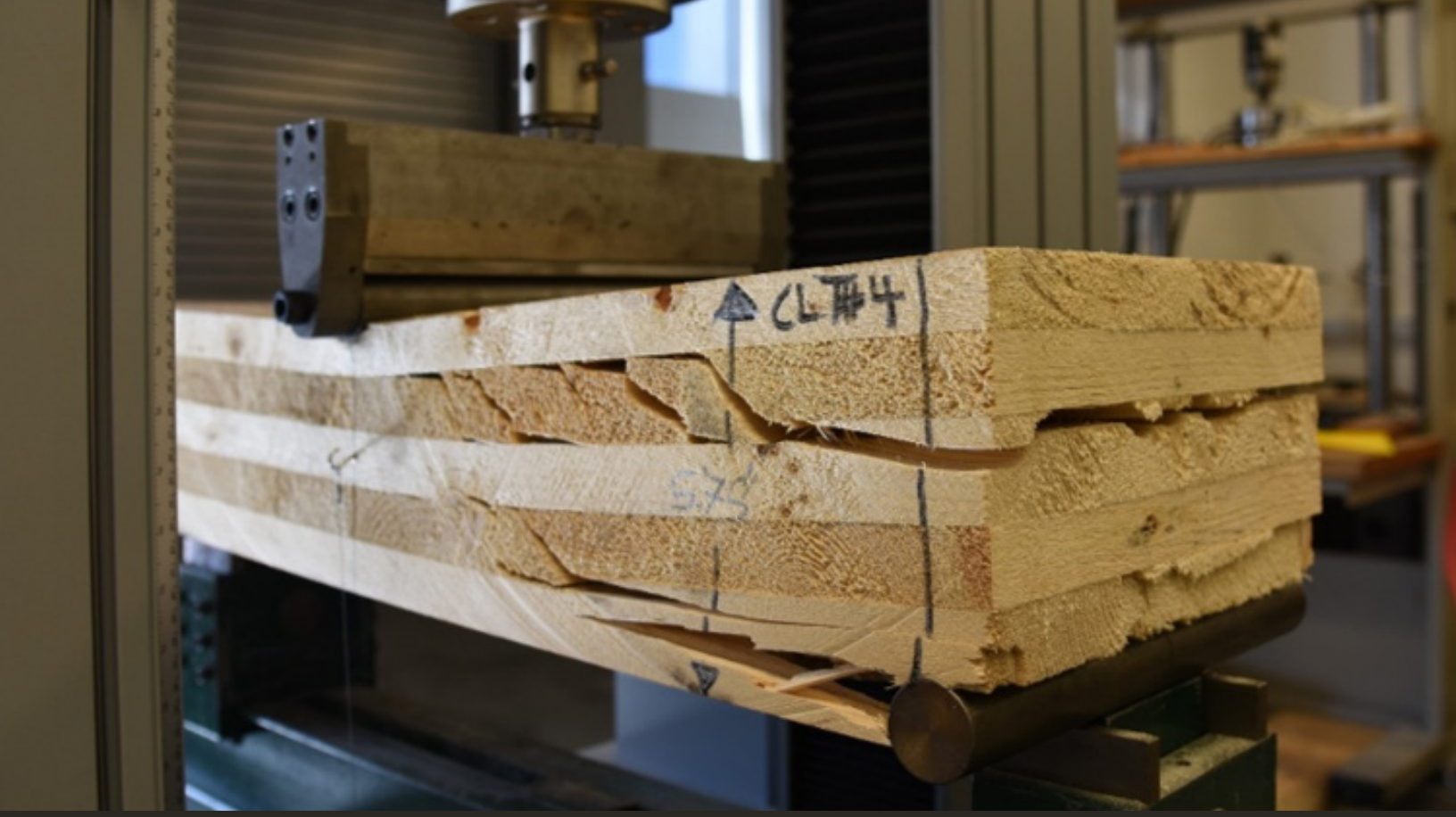
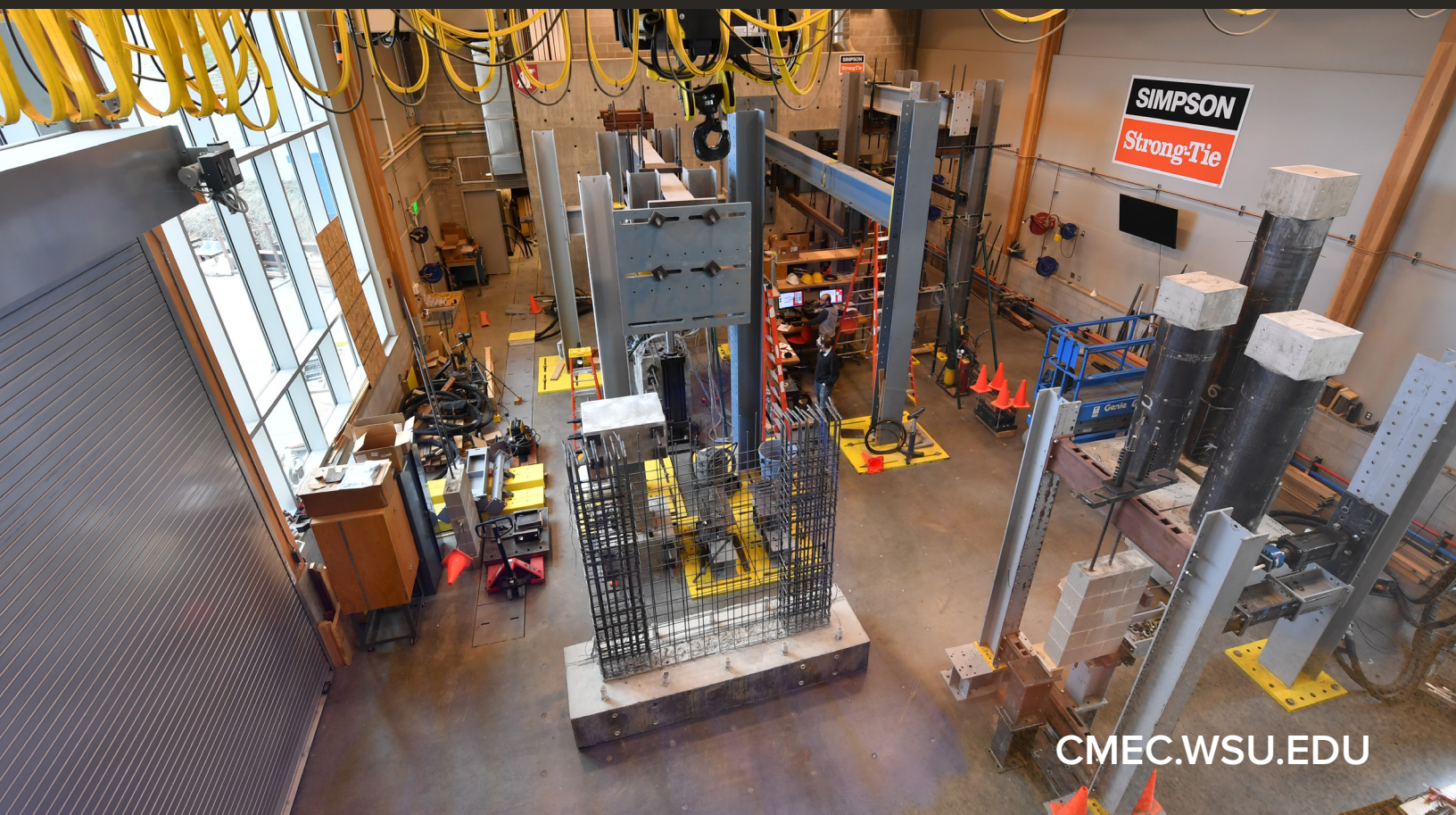


WASHINGTON STATE UNIVERSITY

# Composite Materials and Engineering Center

## ICC Accredited Labs

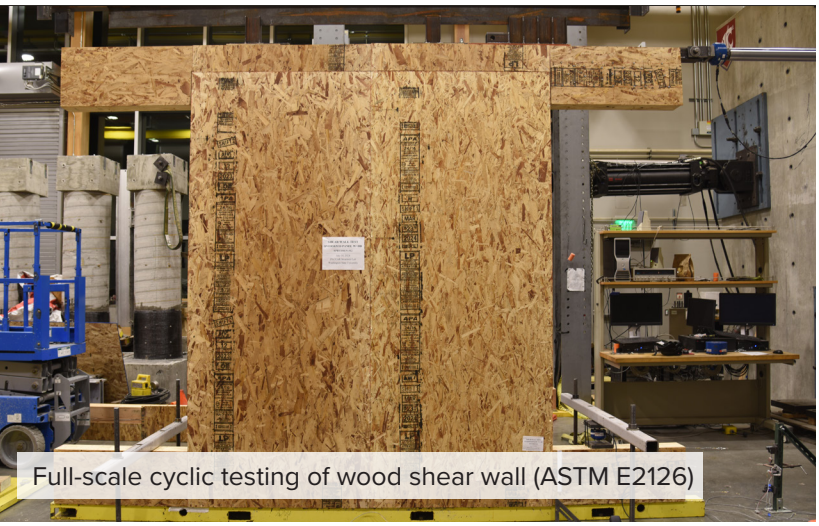



CMEC.WSU.EDU

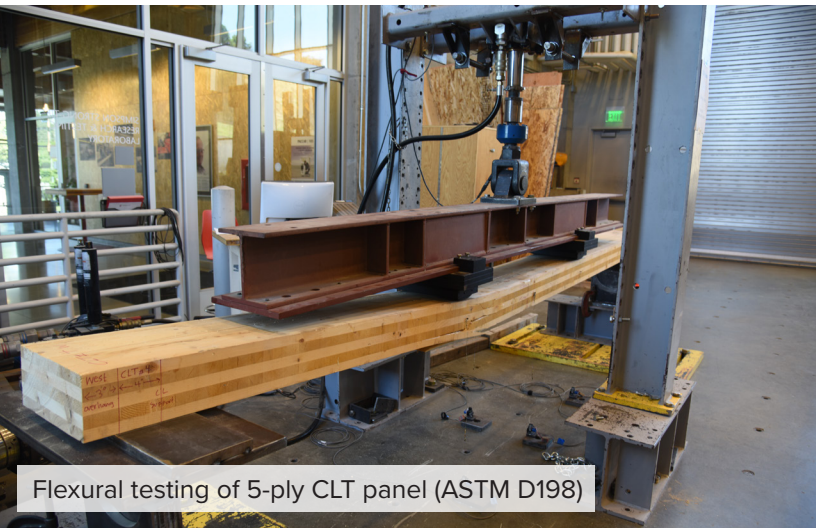
# INTERNATIONAL ACCREDITATION SERVICE (IAS) ACCREDITED STRUCTURAL TESTING FACILITY

The Composite Materials and Engineering Center (CMEC) operates unique structural labs that are accredited through the International Code Council (ICC) and can perform various material and structural testing and evaluation for industry approval. Our high-bay lab has 2,400 sq ft of strong floor lab space, an 18 ft tall strong wall, and houses hydraulic actuators ranging from 7 to 330 kips, all dedicated for large-scale structural testing. We also have four universal test machines with capacities ranging from 2 to 60 kips for smaller-scale projects. We have a total of eight conditioning rooms that maintain temperature and humidity which allows for stabile conditions while preparing and testing wood products. We provide nondestructive evaluation, engineering and fabrication of test fixtures, specimen preparation, mechanical property assessment, evaluation of structural system performance, and data analysis.

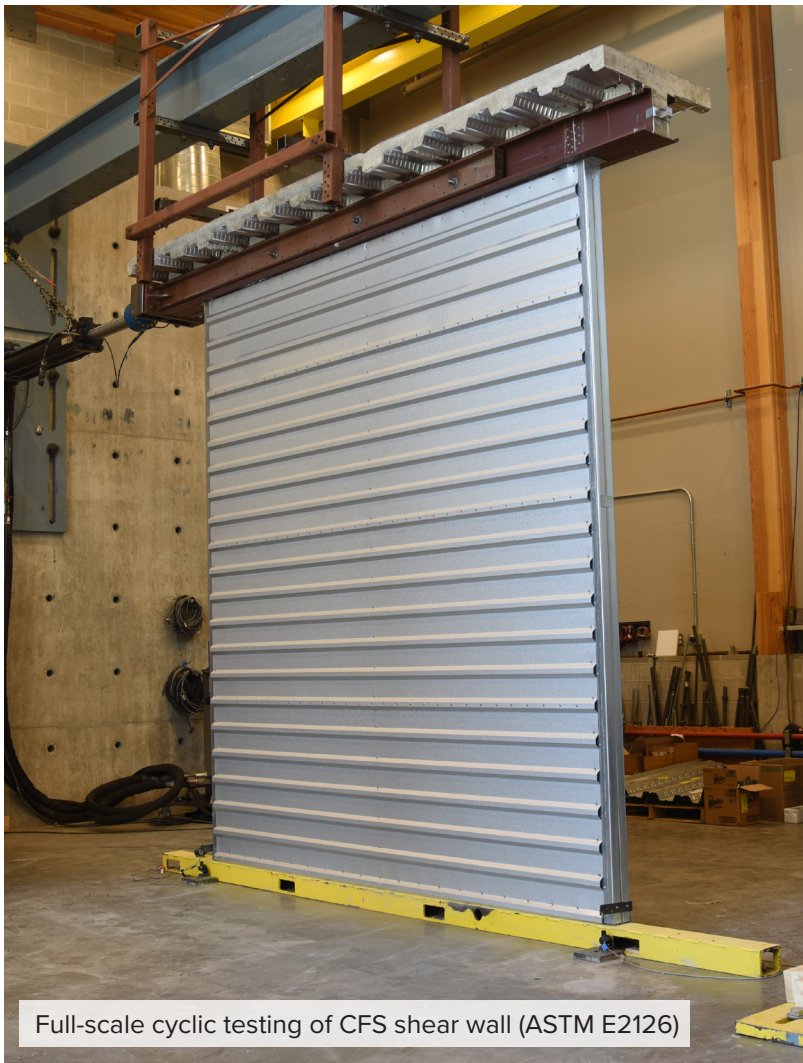
Our structural laboratory at Washington State University has been continuously accredited by ICC/IAS since 2002. This accreditation uniquely positions our facility among university laboratories in the U.S., as it allows us to perform code-recognized testing and produce reports that can be submitted directly to ICC-ES or other authorities having jurisdiction for product evaluation and certification. Our lab is equipped to test a wide range of building products and structural systems, from component-level tests (such as fasteners and connectors) to full system-level evaluations (including shear walls, diaphragm segments, full scale mass timber connections, and mass-timber assemblies). We are accredited to conduct testing under relevant ASTM and ICC ES standards and guidelines and can generate sealed, confidential reports suitable for submittal to ICC-ES in support of developing ICC-ES Evaluation Reports (ESR's).



Full-scale cyclic testing of wood shear wall (ASTM E2126)



Flexural testing of 5-ply CLT panel (ASTM D198)



Full-scale cyclic testing of CFS shear wall (ASTM E2126)

Accreditation by IAS as a testing laboratory indicates that we meet the highest international quality standards. Applicants for an evaluation report may use our reports and services as evidence of building code compliance. Scope of accreditation includes:

- Fasteners and connections
- Deck board and guardrail systems
- Full-scale wall and floor assemblies
- Physical/structural testing of wood and wood-based products
- testing of plastics and wood-plastic composites

## SCOPE OF ACCREDITATION

**ANSI A315.6**
Hardboard Siding

**APA PRP-401**
Performance Standard for APA EWS Rim Boards

**ASTM D 143**
Standard Test Methods for Small Clear Specimens of Timber

**ASTM D 198**
Standard Test Methods of Static Tests of Lumber in Structural Sizes

**ASTM D 1037**
Standard Test Methods for Evaluating Properties of Wood-Based Fiber and Particle Panel Materials

**ASTM D 1761**
Standard Test Methods for Mechanical Fasteners in Wood

**ASTM D 2395**
Standard Test Methods for Specific Gravity of Wood and Wood-Based Materials

**ASTM D 2915**
Standard Practice for Sampling and Data-Analysis for Structural Wood and Wood-Based Products

**ASTM D 3737**
Standard Practice for Establishing Allowable Properties for Structural Glued Laminated Timber (Glulam)

**ASTM D 4442**
Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials

**ASTM D 4761**
Standard Test Methods for Mechanical Properties of Lumber and Wood-Based Structural Materials

**ASTM D 4933**
Standard Guide for Moisture Conditioning of Wood and Wood-Based Products

**ASTM D 5456**
Standard Specification for Evaluation of Structural Composite Lumber Products

**ASTM D 5652**
Standard Test Methods for Bolted Connections in Wood and Wood-Based Products

**ASTM D 5764**
Standard Test Method for Evaluating Dowel-Bearing Strength of Wood and Wood-Based Products

**ASTM D 6815**
Standard Specification for Evaluation of Duration of Load and Creep Effects of Wood and Wood-Based Products

**ASTM D 7031**
Standard Guide for Evaluating Mechanical and Physical Properties of Wood-Plastic Composite Products

**ASTM D 7032**
Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrails Systems (Guards or Handrails)

**ASTM D 7147**
Standard Specification for Testing and Establishing Allowable Loads of Joist Hangers

**ASTM D 7989**
Standard practice for demonstrating equivalent in-plane lateral seismic performance to wood-frame shear walls sheathed with wood structural panels

**ASTM E 72**
Standard Test Methods of Conducting Strength Tests of Panels for Building Construction

**ASTM E 330**
Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Diffrence

**ASTM E 455**
Standard Test Method for Static Load Testing of Framed Floor or Roof Diaphragm Constructions for Buildings

**ASTM E 564**
Standard Practice for Static Load Test for Shear Resistance of Framed Walls for Buildings

**ASTM E 2126**
Standard Test Methods for Cyclic (Reversed) Load Test for Shear Resistance of Vertical Elements of the Lateral Force Resisting Systems for Buildings

**ASTM F 1575**
Standard Test Method for Determining Bending Yield Moment of Nails

**ASTM F 1679**
Standard Test Method for Using a Variable Incidence Tribometer (VIT)

**ICC-ES AC 47**
Acceptance Criteria for Structural Wood-Based Products

**ICC-ES AC 116**
Acceptance Criteria for Nails

**ICC-ES AC 120**
Wood-frame horizontal diaphragms, vertical shear walls and braced walls with alternative fasteners

**ICC-ES AC 130**
Acceptance Criteria for Prefabricated Wood Shear Panels

**ICC-ES AC 155**
Acceptance Criteria for Hold-Downs (Tie-Downs) Attached to Wood Members

**ICC-ES AC 162**
Acceptance Criteria for Structural Bamboo

**ICC-ES AC 174**
Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails)

**ICC-ES AC 273**
Acceptance Criteria for Handrails and Guards

**ICC-ES AC 424**
Acceptance Criteria for Wood-Based Exterior Composite Trim Treated with Zinc-Borate (ZB) Preservative by a Non-Pressure Process.

**ICC-ES AC 455**
Cross-Laminated Timber Panels for Use as Components in Floor and Roof Decks, Floor and Roof

**USDC PS 2**
Performance Standard for Wood-Based Structural-Use Panels

For more information about the ***CMEC Service Centers***, reach out to us at ***cmec@wsu.edu***

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PULLMAN, WA 99164-5815

WASHINGTON STATE
UNIVERSITY

PO BOX 645815
CMEC@WSU.EDU
509-335-2262

# STAYING CONNECTED

In addition to ICC Accredited Testing, we also provide other testing and evaluation services in traditional wood-based composite panels and CLTs, fiber refinement, full-scale extrusion, injection molding, compression molding, and material characterization (including rheology, thermal analysis, chemical and physical property analyses, spectroscopy, molecular particle sizing and electrokinetic potential, microscopy, and chromatography). Experienced CMEC faculty offer consulting services for modeling, experimental design, conducting scientific studies, interpretation of codes and standards, product development, process improvement, analysis, and interpretation of test data, and collaborating on proposals.

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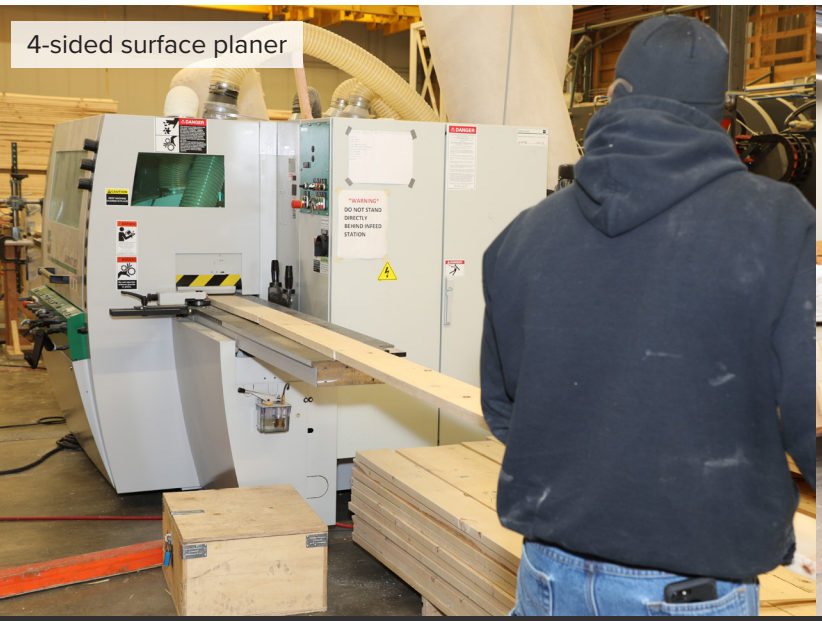
## SCAN TO LEARN MORE ABOUT CMEC

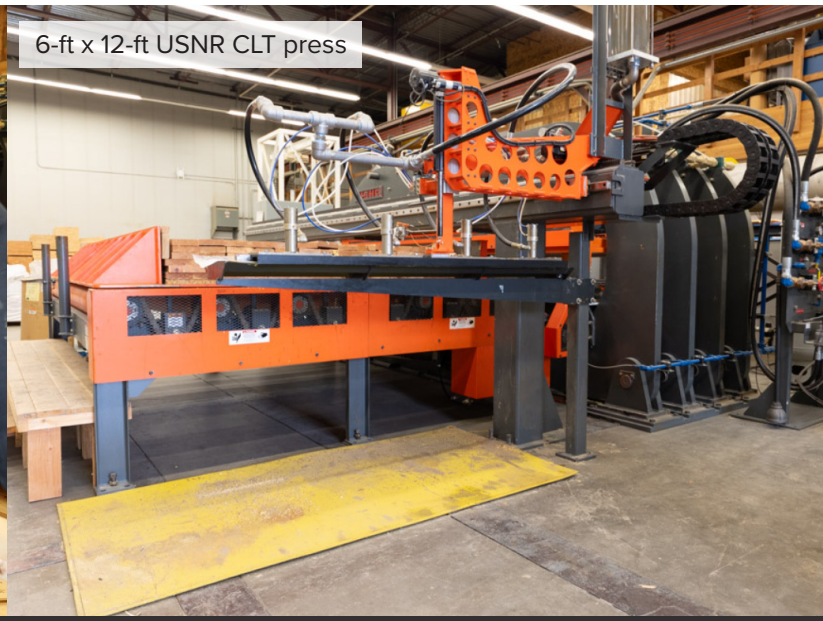
CMEC WEBSITE

SERVICE CENTER

ICC ACCREDITED TESTING

CMEC LINKEDIN


4-sided surface planer


6-ft x 12-ft USNR CLT press

GO COUGS!