

**Mass Plywood Panel (MPP)** is a mass timber panel similar in application to Cross Laminated Timber that was developed, produced and patented by Freres Lumber Co., Inc. Layers of Structural Composite Lumber are assembled and glued to produce a panel up to 12' wide and 48' long meeting the requirements of ANSI/APA PRG 320, and designed to be used in the construction of mid-rise to high-rise structures.

**Cross Laminated Timber (CLT)** is a wood panel product made from glueing layers of solidsawn lumber together. Each board layer is oriented perpendicular to adjacent layers and glued on the wide faces of each board, usually in a symmetric way so that the outer layers have the same orientation. An odd number of layers is most common but there are configurations with even numbers as well. Regular timber is an anisotropic material, meaning that the physical properties change depending on the direction at which the force is applied. By glueing layers of wood at perpendicular angles, the panel is able to achieve better structural rigidity in both directions.

**Structural Composite Lumber (SCL)** is an engineered wood product designed for structural use, SCL is manufactured from wood strands or veneers bonded with adhesives and created using a layering technique where the outcome is a block known as a billet. Similar to conventional sawn lumber and timber, SCL products are used for common structural applications and include laminated veneer lumber (LVL), parallel strand lumber (PSL), laminated strand lumber (LSL) and oriented strand lumber (OSL).

**Laminated Veneer Lumber (LVL)** is a high-strength engineered wood product made from veneers bonded together under heat and pressure. It is used for permanent structural applications including beams and rafters.

**Computer Numeric Code (CNC)** machines are electro-mechanical devices that manipulate machine shop tools using computer programming inputs. Machining is a general way to transform a piece of material like plywood and arrive at a finished product, like a wall with cutout doors and windows. CNC relies on digital instructions from a Computer Aided Manufacturing (CAM) or Computer Aided Design (CAD) file. The CNC machine interprets the design instructions into cutting instructions.

**PRG 320** The ANSI/APA PRG 320 standard covers the manufacturing, qualification and quality assurance requirements for CLT.

**American Society for Testing and Materials (ASTM)** is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.

**E2 CLT** This is a particular CLT layup as specified in the ANSI/APA PRG 320 standard utilizing Machine Stress Rated (MSR) Douglas Fir and Larch lumber in order to improve the performance of the panel. MPP is often compared to the performance of the E2 CLT since both utilize machine graded numbers for input selection.

**International Building Code (IBC)** is a model building code developed by the International Code Council (ICC). It has been adopted for use as a base code standard by most jurisdictions in the United States.

**Plywood** is a manufactured wood product; a structural material consisting of three or more layers of veneer glued and pressed together with the direction of grain altering, usually sold in sheets of four by eight feet.

**APA - The Engineered Wood Association** is a trade organization representing manufacturers of plywood, OSB, glued laminated timber, I-Joists, Rim Board® and structural composite lumber (SCL). The Association has three main functions: 1) research to improve wood structural panel (plywood and OSB) and other engineered wood products and systems, 2) quality inspection and testing to assure the manufacture of high-quality wood structural panel and engineered wood products, and 3) promotion of engineered wood products and building systems. Commonly referred to as "APA," and previously known as the American Plywood Association.



**Engineered Wood Products** are structural wood products manufactured by bonding together wood strands, veneers, lumber or other forms of wood fiber to produce a larger and integral composite unit with superior performance characteristics. These high-performance building components achieve predictable and reliable performance characteristics with the efficient use of natural resources.

**Mass Timber** is a product category and framing style characterized by the use of large, solid wood panels for wall, floor and roof construction. Mass timber panels are six feet or more in width or depth.

**Parallel Strand Lumber (PSL)** is a composite of wood strand elements with wood fibers primarily oriented along the length of the member, where the least dimension of the wood strand elements is 0.25 inches (6.4 mm) or less and their average lengths are a minimum of 300 times the least dimension of the wood strand elements. PSL is one of several structural composite lumber (SCL) types.

**Laminated Strand Lumber (LSL)** is a type of engineered wood with strips of wood that once would have been considered too weak, small or misshapen to use—pressed together to transform the scrap wood into solid joists and studs. LSL lumber is most commonly shaped into framing boards; it is used for other applications.

**Oriented Strand Lumber (OSL)** is a composite of wood strand elements with wood fibers primarily oriented along the length of the member, where the least dimension of the wood strand elements is 0.10 inch (2.54 mm) or less and their average lengths are a minimum of 75 times and less than 150 times the least dimension of the wood strand elements. OSL is one of several structural composite lumber (SCL) types.

**Oriented strand board (OSB)**, also known as flakeboard, is a type of engineered wood similar to particle board, formed by adding adhesives and then compressing layers of wood strands (flakes) in specific orientations.

**International Code Council (ICC)** evaluation service is one of a number of organizations that studies applications for new proprietary products that fall outside the scope of the model code. Evaluation reports are then issued that indicate product equivalency to specific sections of the code

**Scarf Joint** is an angled or beveled joint in plywood splicing pieces together. The length of the scarf is 8 times the thickness required by PS1.

**Tongue and Groove Joint** is a system of jointing in which the rib or tongue of one member fits exactly into the groove of another. A specially designed APA tongue-and-groove panel edge joint is particularly efficient in transferring the load across the joint.

**Veneer** is a thin sheet of wood laminated with others under heat and pressure to form plywood, or used for faces of composite panels. Also called “ply.”

**Veneer Grade** is the standard grade designations of softwood veneer used in panel manufacture. Veneer grade designations for plywood are outlined in product standard PS1-09. Veneer grades for engineered wood products are based on tested strength and density properties.

**California Air Resources Board (CARB)** is the “clean air agency” in the government of California. Established in 1967 when then-governor Ronald Reagan signed the Mulford-Carrell Act, combining the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, CARB is a department within the cabinet-level California Environmental Protection Agency.