



SECTION 06180 CURVED GLULAM

Western Wood Structures, Inc. (WWS), incorporated in 1969 as a structural wood products sales company, offers pre-engineered curved glulam to meet a diverse set of customer needs. Curved glulams are naturally attractive, durable and cost-effective. Clients are afforded the flexibility to select from a variety of curved profiles that best suit the project requirements. Stamped design calculations are available with all orders. The curved glulams designed and supplied by WWS are pre-fabricated to the fullest extent possible. WWS also offers installation services to clients with projects in need of field erection services.



Top: LeMay-America's Car Museum; Tacoma, WA **Left:** Happy Valley Entrance Pavilion; Chengdu, China
Center: Christ the Light Cathedral; Oakland, CA **Right:** Tualatin River National Wildlife Refuge; Sherwood, OR

SECTION 06180

CURVED GLULAM STRUCTURES

1.0 GENERAL REQUIREMENTS

1.1 Description: This section includes the design, fabrication and supply of the curved glulams as shown and described on the contract drawings. The supplier shall furnish all materials, including connecting steel and hardware, for a complete installation.

1.2 Design Criteria:

Dead Load: _____ psf

Live Load: _____ psf

Snow Load: _____ psf

Wind and seismic loads per local building code.

1.3 Qualifications: The curved glulam supplier must be a company specializing in the design and fabrication of curved glulams, with a minimum of five (5) years documented experience. Approved suppliers include:

Western Wood Structures, Inc.
PO Box 130 Tualatin,
Oregon 97062-0130
(800) 547-5411

1.4 Submittals:

1.4.1 Submit shop drawings and product data under the provisions of section 01300. Shop drawings shall include: general framing plan, beam profiles, loads, and fabrication details for all glulam members and steel assemblies. Also indicate dimensions, appearance grades, drilled holes, fasteners and radii.

1.4.2 Submit design calculations stamped by a registered engineer, licensed to practice in the state where the building is being constructed, if required.

1.4.3 Furnish an APA-EWS Certificate of Conformance stating that the glulams conform to the specifications.

1.4.4 Provide a written warranty against defects in material and workmanship for a period of five (5) years.

2.0 PRODUCTS

2.1 Materials:

2.1.1 Glulam shall be Douglas Fir. Stress grades shall be as required by the design. The appearance shall be Industrial/Architectural/Premium per AITC 110 or other (select one). Adhesive shall be 100 percent waterproof phenolic resin glue.

2.1.2 Manufacturer to supply all necessary steel and hardware required for installation. Steel to be ASTM A-36 and hardware to be ASTM A-307. Welding by certified welders per AWS specifications D1.1. All steel and hardware shall be prime coated/epoxy powder coated/galvanized (select one).

2.2 Fabrication:

2.2.1 Curved glulams shall be fabricated in a plant with facilities for performing work specified. Factory drill all holes to the extent possible using steel as templates. For glulams of 8" nominal width or greater, drill holes from both sides of member to ensure true hole alignment. Where curved glulams cannot be shipped due to its configuration, design and supply moment splices as required. Shop fabricate to ensure proper fit. Individually wrap curved glulams after fabrication.

2.2.2 Concealed connector locations shall be fabricated to within 1/8" of true position. Fabricate length of members to be within 1/8" of required length to achieve tight connections.

3.0 EXECUTION

3.1 Delivery, Storage and Handling:

3.1.1 The purchaser or installer is responsible for handling and protection of curved glulams after arrival at destination. All curved glulams shall be unloaded and handled with a forklift or crane, using nylon slings.

3.1.2 If the curved glulams are to be stored at the site, they must be placed on a level surface and stickered to prevent warpage and twisting.

3.1.3 Any damage must be reported immediately to the glulam supplier's professional engineer.

3.2 Installation:

3.2.1 Install the curved glulams according to manufacturer's shop details and installation drawings. Do not field cut, drill, or alter structural members without written approval from the glulam supplier's professional engineer. Set glulams in locations and to elevations indicated. Make provisions for erection loads and provide temporary bracing to maintain trusses true and plumb, and in true alignment until completion of erection.

3.2.2 Maintain factory-applied wrapping until roof structure is enclosed. Touch up primed surfaces of steel assemblies with primer coat compatible with shop coat.

WESTERN WOOD



STRUCTURES