## Part I - General

### 1.1 System Description

A. Beams shall be timbers of glue laminated Douglas Fir (DF) as manufactured by Rigidply Rafters, Inc., Richland, PA 17087.

B. Beams shall be stamped with the American Institute for Timber Construction (AITC) product quality mark.

### Quality Assurance

**A. Manufacturer Qualifications:**

1. Minimum of 10 years experience in manufacturing glued laminated timbers.

**B. Installer Qualifications:**

1. Minimum of 3 years experience in building construction.

### References


C. AITC 117-2010 - *Manufacturing*

D. Grading Rules, West Coast Lumber Inspection Bureau 2004.


### Handling, Storage, and Installation

A. Handle only with web belting type slings. Use cleats or blocking to protect corners at pickup points.

B. Store all beams properly and adequately to protect from damage on jobsite.

C. Protect beams from adverse conditions prior to installation. (i.e. moisture damage.)

D. Where appearance is important, coat beams with waterproof sealer.

E. Proper installation of beams is the responsibility of the installer. See Rigidply Rafters Inc “Glue-Laminated Wood Timber Handling and Storage Instructions” and relevant AITC Publication for additional information.

## Part II - Materials

### 2.1 Lumber - Lumber shall be of untreated Douglas Fir as specified by the designer

A. Untreated DF shall be kiln dried to 15% with maximum moisture content of 16% prior to manufacturing.

### 2.2 Adhesives

A. The face joint adhesive shall be wet-use phenol-resorcinol adhesive conforming to "ASTM D 2559."

B. The end joint (finger joint) adhesive shall be a wet-use melamine adhesive conforming to "ASTM D 2559."

## Part III - Manufacturing

### 3.1 Process

A. All lumber shall be regarded and checked for moisture content by the manufacturer.

B. The laminations shall be made to length by finger jointing the individual pieces together. These structural finger joints shall be radio frequency cured.

C. The laminations shall be surfaced, glued, and then clamped. The clamp-up shall be maintained at room temperature at a minimum pressure of 100 PSI.

D. The beams shall be surfaced after gluing on the narrow faces of the laminations.

E. The corners exposed to view shall be eased.

### 3.2 Quality Control

A. Each lot shall be qualified by the following tests as described in *AITC 200-2009*:

1. "AITC Test T107 Shear Test."
2. "AITC Test T110 Cyclic Delamination Test."
3. "AITC Test T119 End Joint Tension Test."

B. Each order shall be inspected to verify that beams comply with the shop order.

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1 Rigidply Rafters Glulam Beams are supplied with waterproof sealer applied to the ends. Additional sealing or staining is available.

2 This is architectural appearance grade. Additional surfacing is included with premium grade.