

AMTRAK ENGINEERING PRACTICES Structures Department Standard Design Practices (SDP)	Section 3 – Minimum Technical Requirements	EP4000
	Chapter 6 – Woods, Plastics, and Composites	SDP: 3.06
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Woods, Plastics, and Composites

I. Rough Carpentry

A. Materials

1. All wood in contact with masonry or concrete, exposed to the weather, or within 8" of grade shall be preservative pressure-treated or a naturally rot resistant species of wood.
2. Lumber for miscellaneous uses:
 - a. Unless otherwise indicated, use standard grade lumber for support of other work, including bucks, Nailers, blocking, furring, grounds, fire blocking, stripping and similar members.
 - b. Fire-resistant wood grounds, furring, blocking, Nailers, etc. to be used in non-combustible constructions.
3. All plywood shall be exterior rated or marine grade.

B. Accessories

1. Fasteners and anchors:
2. All connectors, nails, lag bolts, thru-bolts being used in contact with alkaline copper quaternary (ACQ) treated lumber are to be Type 304 stainless steel or Type 316 stainless steel.

C. Accessory/equipment support

1. Where accessories, fixtures, equipment, or any other components are to be installed and supported at stud walls, provide continuous 5/8" exterior rated plywood backup behind gypsum board and/or tile backer board or as required by manufacturer of component to be installed.

II. Heavy Timber Construction

A. Materials

1. Structural timber shall have the have the following properties as minimums, Fb = 850 psi, Fv = 75 psi, E = 1300 ksi.
2. Glued laminated members shall conform to AITC 117-2004 and shall have the following properties as minimums, Fb = 2200 psi, Fv = 165 psi, E = 1500 ksi.
3. Parallam beams shall have the following properties as minimums, Fb = 2900 psi, Fv = 290 psi, E = 2000 ksi.

B. Installation

1. Installation to be in strict accordance with manufacturer's recommendations.

III. Interior Architectural Woodwork

A. General

1. Fabricate and install all millwork in accordance with Premium Grade quality as specified in AWI Quality Standards Illustrated (QSI), current edition.

B. Execution

1. Installation
 - a. Set and secure materials and components in place, plumb and level.
 - b. Countertops are to be scribed to fit to ensure no gaps remain.
2. Adjusting and Cleaning

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- a. Adjust moving or operating parts to function smoothly and correctly
- b. Clean cabinets and leave in perfect working order with all doors, shelves and drawers aligned and plumb