

**SECTION 06 10 00
ROUGH CARPENTRY**

PART 1 - GENERAL

1.01 RELATED SECTIONS

- A. Section 061753 – Shop-Fabricated Wood Trusses.
- B. Section 062000 – Finished Carpentry.
- C. Section 064000 – Architectural Woodwork.

1.02 REFERENCES

AF&PA – National Design Specification for Wood Construction with 2005 Supplement.

ALSC – American Lumber Standards Committee: Softwood Lumber Standards.

ANSI A208.1 – Mat-Formed Wood Particleboard.

ANSI/AHA A135.4 – Basic Hardboard.

APA – American Plywood Association.

ASTM D2559 – Standard Specification for Adhesives for Structural Laminated Wood Products for Use Under Exterior (Wet Use) Exposure Conditions.

ASTM D3498 – Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems.

AWPA C1 – All Timber Products Preservative Treatment by Pressure Process.

AWPA C2 – Lumber, Timber, Bridge Ties and Mine Ties – Preservative Treatment by Pressure Process.

AWPA C9 – Plywood - Preservative Treatment by Pressure Process.

AWPA C20 – Structural Lumber Fire-Retardant Treatment by Pressure Process.

AWPA C27 – Plywood – Fire-Retardant Treatment by Pressure Process.

PS 2 – Performance Standard for Wood-Based Structural-Use Panels.

PS 20 – American Softwood Lumber Standard

SPIB – Southern Pine Inspection Bureau.

WCLIB – West Coast Lumber Inspection Bureau.

WWPA – Western Wood Products Association.

1.03 DEFINITIONS

- A. Structural panels are all-veneer plywood, composite panels containing a combination of veneer and wood-based material, or mat-formed panels such as oriented strand board and waferboard.

1.04 SUBMITTALS

- A. For treated materials, submit certification by treating plant stating chemicals and process used, net amount of preservative retained and conformance with applicable standards.
- B. For all dimensioned lumber, submit letters of certificate stating the species and grade of lumber used.
- C. For all structural sheathing, submit letters of certificate stating the structural panels meet specified requirements.
- D. Submit product data for metal framing anchors, connectors, and construction adhesives.

1.05 QUALITY ASSURANCE

- A. Comply with National Design Specification For Wood Construction.
- B. Perform Work in accordance with the following agencies:
 - 1. Lumber Grading Agency: Certified by ALSC.
 - 2. Plywood Grading Agency: Certified by APA.
- C. Identify all wood products by official grade mark, except for wood products exposed to view submit manufacturer's certificate that lumber meets specified requirements.
 - 1. Lumber: Grade stamp to contain symbol of inspection agency, mill number or name, grade of lumber, species or species grouping or combination designation, rules under which graded, where applicable and condition of seasoning at time of manufacture.
 - 2. Structural Panel: Panel grade, span rating, exposure durability classification, product standard thickness, and mill number.
- D. Structural Testing/Inspection Agency shall perform the following quality related items:
 - 1. Verify spacing, size, grade, and species of wood members.
 - 2. Verify attachment pattern, construction adhesive (if applicable) and orientation of structural panels.
 - 3. Verify anchorage and connection details of beams and headers.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle all materials in such a manner to protect against damage and the weather.
- B. Protect the installed work and materials of all other trades.
- C. In the advent of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 LUMBER

- A. Lumber: Solid sawn and finger-jointed lumber manufactured to comply with PS 20 "American Softwood Lumber Standards" and with the applicable grading rules of inspection agencies certified by American Lumber Standards Committee's (ALSC) Broad of Review listed:
 - 1. Redwood Inspection Service.(RIS).
 - 2. Southern Pine Inspection Bureau (SPIB).
 - 3. West Coast Lumber Inspection Bureau (WCLIB).
 - 4. Western Wood Products Association (WWPA).
 - 5. National Lumber Grades Authority (NLGA – Canadian)
- B. Nominal sizes are indicated, except as shown by detail dimensions. Provide actual size as required by PS 20, for moisture content specified for each use.
- C. Dressed lumber: S4S, unless otherwise indicated.
- D. Moisture Content: Seasoned lumber, 15% maximum moisture content at time of dressing, unless noted otherwise on the Drawings.

2.02 STRUCTURAL PANELS

- A. Structural panels: Conform to PS 2, with a span rating to suit the joist, stud, rafter, or truss spacing, and an Exposure Durability Classification of Exposure 1 unless noted otherwise.
- B. Roof panels: APA rated sheathing.

2.03 ACCESSORIES

- A Fasteners: Size and type indicated that comply with requirements specified in this article for material and manufacture. Galvanized with a hot-dip zinc coating in accordance with ASTM A153 or made of AISI Type 304 stainless steel for lumber which is exposed to weather, in contact with the ground, or has been chemically treated.
- B. Common Wire Nails: Meet the requirements of FS FF-N-105.
- C. Drywall Screws: Hardened steel, bugle head with length three times thickness of sheathing.
- D. Construction Adhesive: Meet the requirements of ASTM D3498.
- E. Joist Hangers and Framing Anchors: Manufactured by Simpson Strong Tie or approved equal.
- F. Steel Bolts: Steel bolts in conformance with ASTM A307, Grade A with ASTM A 563 hex nuts and flat washers.

2.04 PRESERVATIVE TREATMENT

- A. Where lumber or structural panel is indicated as "treated", or is specified herein to be treated, comply with the applicable requirements of the AWPA Standards C2 (Lumber) and C9 (Plywood). Mark each treated item with the AWPA Quality Mark requirements.
- B. Pressure-treat above-ground items with water-borne preservatives listed in AWPA P5. Treat indicated items and the following:

1. Wood cants, nailers, curbs, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers and waterproofing.
 2. Wood sills, sleepers, blocking, furring, stripping and similar concealed members in contact with masonry or concrete.
- C. Complete fabrication of treated items prior to treatment, wherever possible. If cut after treatment, apply one coat of same chemical used for treatment in accordance with manufacturer's instructions.
- D. Allow preservative to dry prior to erecting members. Inspect each piece of lumber or structural panel after drying and discard damaged or defective pieces.
- E. Provide lumber or structural panels with a retained chemical level as follows:
1. 0.25 pcf for above ground use.
 2. 0.40 pcf intended for ground contact and fresh water use.

2.05 FIRE RETARDANT TREATMENT

- A. Testing on the fire performance, strength and corrosive properties of the fire retardant treated wood shall be recognized by issuance of a National Evaluation Services Report.
- B. Fire retardant wood shall meet the flamespread requirement of the assembly rating stated on the drawings when tested in an extended 30-minute tunnel test in accordance with ASTM E-84, NFPA 255 or UL 723.
- C. Fire-retardant lumber must be kiln dried to a maximum moisture content of 19 percent after treatment. All plywood must be kiln dried to a maximum moisture content of 15 percent after treatment.
- D. All fire retardant wood must comply with the requirements in AWPA standard C20 for lumber and C27 for plywood.
- E. The fire retardant chemicals used to treat the lumber must comply with FR-1 of AWPA Standard P17 and must be free of halogens, sulfates and ammonium phosphate.

PART 3 - EXECUTION

3.01 GENERAL

- A. Set structural members level and plumb, in correct position.
- B. Make provisions for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- C. Discard unit of material with defects that might impair quality of work, and units that are too small to fabricate work with minimum joints or optimum joint arrangement.
- D. Installer must examine the substrate structure and the conditions under which the carpentry Work is to be installed, and notify the Contractor in writing of conditions detrimental to the Work. Do not proceed with the installation until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

- E. Coordinate carpentry Work with other Work; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds and similar supports to allow proper attachment of other Work.

3.02 JOIST FRAMING

- A. Provide framing of sizes and spacings shown.
- B. Install with crown edge up and support ends of each member with not less than 1-7/8 inches of bearing on support.
- C. Attach to wood bearing members by toe nailing or galvanized metal connectors. Provide blocking of joist at ends of joists unless nailed to header or supported by metal joist hanger.
- D. Do not notch joists.
- E. Provide bridging between joists.

3.03 STRUCTURAL PANELS

- A. Place roof sheathing perpendicular to framing members with ends staggered and sheet ends over firm bearing. Secure to wood framing with nails of size and spacing shown on Drawings.
- B. Oriented strand board with laminated face shall be attached to wood with laminated face against wood framing.

3.04 WOOD GROUND, NAILERS, BLOCKING AND SLEEPERS

- A. Provide wherever shown and where required for screening or attachment of other Work. Form to shapes as shown and cut as required for true line and level of Work to be attached. Coordinate location with other Work involved.
- B. Attach to substrate as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown. Build into masonry during installation of masonry Work. Where possible, anchor to formwork before concrete placement.
- C. Provide permanent grounds of dressed, preservative treated, key-bevelled lumber not less than 1-1/2" (38mm) wide and of thickness required to bring face of ground to exact thickness of finish material involved. Remove temporary grounds when no longer required.

3.05 WOOD FURRING

- A. Install plumb and level with closure strips at edges and openings. Shim with wood as required for tolerance of finished Work.

3.06 MISCELLANEOUS FRAMING

- A. Framing for mechanical Work:
 - 1. Frame members for passage of pipes and ducts to avoid cutting structural members.
 - 2. Reinforce framing members where damaged by cutting.

**FRANKLIN CO.
ANIMAL CONTROL FACILITY**

WINCHESTER, TN

- B. Blocking: Locate blocking to facilitate installation of finish materials, casework, fixtures, specialty items and trim railings.

END OF SECTION