SECTION 06 10 00
ROUGH CARPENTRY

SPEC WRITER NOTES:
1. Use this section only for NCA projects
2. Delete between // _____// if not applicable to project.
3. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.

PART 1 - GENERAL
1.1 DESCRIPTION
Section specifies wood blocking, sheathing, furring, nailers, and rough hardware.

1.2 RELATED WORK
A. Milled woodwork: Section 06 20 00, FINISH CARPENTRY.
B. Cement board sheathing: Section 06 16 63, CEMENTITIOUS SHEATHING.

1.3 SUBMITTALS
A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
B. Shop Drawings showing framing connection details, fasteners, connections and dimensions.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING
A. Protect lumber and other products from dampness both during and after delivery at site.
B. Pile lumber in stacks in such manner as to provide air circulation around surfaces of each piece.
C. Stack plywood and other board products so as to prevent warping.
D. Locate stacks on well drained areas, supported at least 150 mm (6 inches) above grade and cover with well ventilated sheds having firmly constructed over hanging roof with sufficient end wall to protect lumber from driving rain.

1.5 APPLICABLE PUBLICATIONS
A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in the text by basic designation only.
B. American Forest and Paper Association (AF&PA):
   National Design Specification for Wood Construction
   T10105 ............... Wood Design Package including NDS
C. American Institute of Timber Construction (AITC):
   A190.1-02 ............... Structural Glued Laminated Timber
D. American Society of Mechanical Engineers (ASME):
   B18.2.1A-96(R2005) ..... Square and Hex Bolts and Screws

ROUGH CARPENTRY
06 10 00 - 1
B18.2.2-87(R2005) ....... Square and Hex Nuts
B18.6.1-81 (R2008) ...... Wood Screws
B18.6.4-98(R2005) ....... Thread Forming and Thread Cutting Tapping Screws
and Metallic Drive Screws

E. American Plywood Association (APA):
E30-07 ................... Engineered Wood Construction Guide

F. American Society for Testing and Materials (ASTM):
D143-94(R2007) ......... Small Clear Specimens of Timber, Method of
Testing
D1760-01 ............... Pressure Treatment of Timber Products
F844-07a ............... Washers, Steel, Plain (Flat) Unhardened for
General Use
F1667-05 ............... Nails, Spikes, and Staples

G. Federal Specifications (Fed. Spec.):
MM-L-736D-08 ........... Lumber; Hardwood

H. Forest Stewardship Council (FSC)
Stewardship

I. Green Seal (GS)

J. Commercial Item Description (CID):
A-A-55615-95 ............ Shield, Expansion (Wood Screw and Lag Bolt Self
Threading Anchors)

K. Military Specification (Mil. Spec.):
MIL-L-19140E-97 .......... Lumber and Plywood, Fire-Retardant Treated

L. South Coast Air Quality Management District (SCAQMD)
SCAQMD Rule 1168 ...... (1989; R2005) Adhesive and Sealant Applications

M. Truss Plate Institute (TPI):
TPI 1-02 ................. Metal Plate Connected Wood Trusses

N. U.S. Department of Commerce Product Standard (PS)
PS 1-95 ................. Construction and Industrial Plywood
PS 20-05 ............... American Softwood Lumber Standard

PART 2 - PRODUCTS

2.1 LUMBER

A. Unless otherwise specified, each piece of lumber shall bear a grade
mark, stamp, or other identifying marks indicating grades of material,
and rules or standards under which produced.
1. Identifying marks in accordance with rule or standard under which
material is produced, including requirements for qualifications and
authority of the inspection organization, usage of authorized identification, and information included in the identification.

2. Inspection agency for lumber approved by the Board of Review, American Lumber Standards Committee, to grade species used.

SPEC WRITER NOTES:
1. Lumber grades specified are for general use.
2. If appearance and use is a factor, then appropriate grades and species must be selected and specified.
3. Design members and fastenings to conform to AITC Timber Construction Manual.
4. Coordinate to show structural properties on drawings of load bearing structural members.

B. Structural Members: Species and grade as listed in the AFPA, National Design Specification for Wood Construction having design stresses as shown.

C. Lumber Other Than Structural:
1. Unless otherwise specified, species graded under the grading rules of an inspection agency approved by Board of Review, American Lumber Standards Committee.
2. Framing lumber: Minimum extreme fiber stress in bending of 1100.
3. Furring, blocking, nailers and similar items 100 mm (4 inches) and narrower Standard Grade; and, members 150 mm (6 inches) and wider, Number 2 Grade.

D. Sizes:
2. Size references are nominal sizes, unless otherwise specified, actual sizes within manufacturing tolerances allowed by standard under which produced.

E. Moisture Content:
1. At time of delivery and maintained at the site.
2. Boards and lumber 50 mm (2 inches) and less in thickness: 19 percent or less.
3. Lumber over 50 mm (2 inches) thick: 25 percent or less.

F. Preservative Treatment:
1. Do not treat Heart Redwood and Western Red Cedar.
2. Preservative treat by the pressure method complying with ASTM D1760,

SPEC WRITER NOTES:
1. Plywood grades and thickness listed are for conventional light framing and light loading.

ROUGH CARPENTRY
06 10 00 - 3
2. Where appearance, high humidity, loading, or permanently exposed to the weather and other end uses are a consideration, specify grades, type, glue line and thickness required.
3. Consider treatment for resistance to fire, rot, and vermin.

2.2 PLYWOOD

A. Comply with Prod. Std., PS 1 and APA E30
B. Bear the mark of a recognized association or independent inspection agency that maintains continuing control over quality of plywood which identifies compliance by veneer grade, group number, span rating where applicable, and glue type.
C. Sheathing:
   1. APA rated Exposure 1 or Exterior; panel grade CD or better.
   2. Wall sheathing:
      a. Minimum 9 mm (11/32 inch) thick with supports 400 mm (16 inches) on center and 12 mm (15/32 inch) thick with supports 600 mm (24 inches) on center unless specified otherwise.
      b. Minimum 1200 mm (48 inches) wide at corners without corner bracing of framing.

   SPEC WRITER NOTES: Verify with Structural Engineer for additional dead load requirements.

   3. Roof sheathing:
      a. Minimum 9 mm (11/32 inch) thick with span rating 24/0 or 12 mm (15/32 inch) thick with span rating for supports 400 mm (16 inches) on center unless specified otherwise.
      b. Minimum 15 mm (19/32 inch) thick or span rating of 40/20 or 18 mm (23/32 inch) thick or span rating of 48/24 for supports 600 mm (24 inches) on center.

   SPEC WRITER NOTES:
   1. Specify other manufactured lumber if used. Allow options where possible.

2.3 ROUGH HARDWARE AND ADHESIVES

A. Washers
   1. ASTM F844.
   2. Use zinc or cadmium coated steel or cast iron for washers exposed to weather.
B. Screws:
   1. Wood to Wood: ANSI B18.6.1 or ASTM C1002.
   2. Wood to Steel: ASTM C954, or ASTM C1002.
C. Nails:

ROUGH CARPENTRY
06 10 00 - 4
1. ASTM F1667:
   b. Concrete: Type I, Style 11.
   d. Underlayment: Type I, Style 25.
   e. Masonry: Type I, Style 27.

2.4 BLOCKING
   A. General: Provide miscellaneous lumber as indicated and lumber support or
      attachment for other construction, including the following:
      1. Blocking
      2. Nailers
      3. Furring

PART 3 - EXECUTION

3.1 INSTALLATION OF FRAMING AND MISCELLANEOUS WOOD MEMBERS
   A. Conform to applicable requirements of the following:
   B. Sheathing:
      1. Lay panels with joints staggered, with edge and ends 3 mm (1/8 inch)
         apart and nailed over bearings as specified.
      2. Set nails not less than 9 mm (3/8 inch) from edges.
      3. Install 50 mm by 100 mm (2 inch by 4 inch) blocking spiked between
         studs to support edge or end joints of panels.

3.2 PROTECTION
   A. Protect rough carpentry from weather.
   B. If rough carpentry becomes wet, apply EPA-registered borate treatment
      complying with EPA registered label.