

SECTION 061000

ROUGH CARPENTRY

PART 1 GENERAL

1.01 REFERENCES

- A. Standards: Comply with the following unless otherwise specified or indicated on the Drawings:
1. Lumber: American Softwood Lumber Standard PS 20 by the U.S. Department of Commerce. Comply with applicable provisions for each indicated use.
 2. Plywood: Product Standard PS 1 for Softwood Plywood, Construction and Industrial by the U.S. Department of Commerce.
 3. Plywood Installation: APA Design/Construction Guide, Residential & Commercial by the American Plywood Association (APA).
 4. Grading Rules:
 - a. Douglas Fir, Hem-Fir, Idaho White Pine, and other Western Woods: Western Wood Products Association (WWPA) or West Coast Lumber Inspection Bureau (WCLIB).
 - b. Southern Pine: Southern Pine Inspection Bureau (SPIB).
 - c. Redwood: Redwood Inspection Service (RIS).
 - d. Spruce-Pine-Fir: National Lumber Grades Authority (NLGA).
 5. Preservative Treatment: American Wood Preservers' Association (AWPA) and American Wood Preservers Bureau (AWPB) Standards, quality control methods, and inspection requirements.
 6. Fire-Retardant Treatment: American Wood Preservers' Association (AWPA) Standards.
 7. Framing Installation: American Forest and Paper Association (AFPA).

1.02 QUALITY ASSURANCE

- A. Mill and Producers Mark: Each piece of lumber and plywood shall be gradestamped indicating type, grade, mill, and grading agency certified by the Board of Review of the American Lumber Standards Committee. Mark shall appear on unfinished surface, or ends of pieces with finished surfaces.
1. Pressure Preservative Treated Material: Accredited agency quality mark, on each piece of wood, indicating treatment.
 2. Fire-Retardant Treated Material: Accredited testing agency mark, on each piece of wood, indicating compliance with the fire hazard classification.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Keep materials dry. Make provision for air circulation around and between stacks of wood products.

PART 2 PRODUCTS

2.01 LUMBER

- A. General: Furnish seasoned dimension lumber dressed to nominal sizes indicated with 19 percent maximum moisture content at time of dressing, marked "S-DRY". Comply with dry size requirements of PS 20.
- B. Board Lumber; less than 2 inches thick:
 - 1. Exposed Board Lumber, for Paint Finish: Southern Pine No. 1 (SPIB), Douglas Fir 2 Common (WWPA), Select Merchantable (WCLIB), or Spruce-Pine-Fir Appearance (NGLA).
 - 2. Concealed Board Lumber: Southern Pine No. 3 (SPIB), any species No. 4 (WWPA), any species Standard (WCLIB), or Spruce-Pine-Fir No. 1 / No. 2 (NGLA).
- C. Miscellaneous Lumber: Standard grade, No. 3 grade, or better grade of the following species unless otherwise indicated:
 - 1. Nailers and Blocking: Douglas Fir, Hem-Fir, Idaho White Pine, Southern Pine, or Spruce-Pine-Fir.
 - 2. Furring: Spruce, Hem-Fir, or Spruce-Pine-Fir except Douglas Fir or Southern Pine for furring required to receive preservative treatment.

2.02 MISCELLANEOUS MATERIALS

- A. Underlayment Patching Compound: Hardsetting, quicksetting type with latex or polyvinyl acetate binder.
- B. Asphalt Felt: Asphalt-saturated felt, No. 15, without perforations, complying with ASTM D 226.
- C. Rosin Paper: Commercial, rosin-sized building paper, 0.010 inch thick.

2.03 PRESERVATIVE TREATMENT

- A. Treat lumber and plywood where indicated and as specified. Comply with applicable AWPB and AWPB Standards and quality control and inspection requirements.
- B. Complete fabrication of items to be treated to the greatest extent possible prior to treatment. Where items must be cut after treatment, coat cut surfaces with heavy brush coat of the same chemical used for treatment or other solution recommended by AWPB Standards for the treatment.
- C. Pressure Treatment (Above Ground Use): Treat the following wood items with waterborne preservatives for above ground use, complying with AWPB LP-2. Redry wood to a maximum moisture content of 19 percent after treatment.
 - 1. Nailers, blocking, cants, shim stock, and similar members used in conjunction with roofing (including related flashings, trim and vapor barrier) and coping.

2. Nailers, blocking, furring, stripping, and similar concealed members in contact with exterior masonry and concrete (including interior wythe of exterior walls).
3. Wood items indicated or scheduled on the Drawings to be preservative treated.

2.04 FIRE-RETARDANT TREATMENT

- A. Furnish "FR-S" lumber, complying with AWWPA Standards for pressure impregnation with fire-retardant chemicals to achieve a flamespread rating of 25 or less, when tested in accordance with UL Test 723, ASTM E 84 or NFPA Test 255.
 1. Where treated items are indicated to receive a transparent or paint finish, use a fire-retardant treatment which will not bleed through or adversely affect bond of finish.
 2. Provide UL label or identifying mark on each piece of fire-retardant lumber.
 3. Redry treated items to a maximum moisture content of 19 percent after treatment.

2.05 FASTENERS AND ANCHORING DEVICES

- A. Select and furnish items of type, size, style, grade, and class as required for secure installation of the Work. Items shall be galvanized for exterior locations, high humidity locations, and for use with treated wood. Unless shown or specified otherwise, comply with the following:
 1. Nails and Staples: FS FF-N-105.
 2. Wood Screws: FS FF-S-111.
 3. Bolts and Studs: FS FF-B-575.
 4. Nuts: FS FF-N-836.
 5. Washers: FS FF-W-92.
 6. Lag Bolts or Lag Screws: FS FF-B-561.
 7. Masonry Anchoring Devices: Expansion shields, masonry nails and drive screws: FS FF-S-325.
 8. Toggle Bolts: FS FF-B-588.
 9. Bar or Strap Anchors: ASTM A575 carbon steel bars.
 10. Wall Plugs: Corrugated type, galvanized steel, 24 USS gage min, not less than 2 inches wide x 2-1/2 inches deep.
 11. Metal Hangers and Framing Anchors: Size and type for intended use, galvanized finish, manufacturer's recommended fasteners.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Nailers and Blocking: Attach to substrate as required to support applied loading.
- B. Treated Wood: Brush-coat field cut surfaces with same treatment material.

END OF SECTION

SECTION 061053

WOOD NAILERS AND BLOCKING

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. EPDM Sheet Roofing System: Section 075323.

1.02 QUALITY ASSURANCE

- A. Mill and Producer's Stamp: Each piece of lumber shall bear a stamp indicating type, grade, mill, and grading agency.
 - 1. Pressure treated wood shall bear a stamp or tag indicating the name of the treating company, year treated, preservative used, the level of treatment, intended use (appropriate AWPA Standard), and logo of inspecting company.

1.03 STORAGE

- A. Store lumber a minimum of 6 inches off the ground, in a dry, well-ventilated place, protected from the weather.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Lumber: "Standard" Grade Douglas Fir, Hem-Fir, White Pine, Southern Pine, or Spruce-Pine-Fir pressure preservative treated in accordance with the American Wood Preservers Association (AWPA) Standard U1, Commodity Specification A for the requirements listed under Use Category UC2 and kiln dried to 19 percent moisture content after treatment.
 - 1. Use Category UCFA and UCFB: Wood nailers and blocking intended for fire protection and is used in either interior weather protected (UCFA) or exterior construction, exposed to weather (UCFB).
- B. Nails, Screws, and Bolts: ASTM A653 Class G185 hot dipped galvanized, zinc or cadmium plated, or silicon bronze.
 - 1. Screws and Bolts for fastening to Aluminum: Stainless steel, Type 304 or 316.
- C. Expansion Anchors: G185 Hot dipped galvanized steel wedge anchors, FS FF-S-325, Group II, Type 4, Class 1.
- D. Toggle Bolts: Cadmium or zinc plated tumble - wing type; FS FF-B-588.

- E. Self Threading Masonry Screws: Zinc Plated; “Tapcon” by Elco Industries, Inc., 1111 Samuelson Rd., PO Box 7009, Rockford, IL 61125-7009, (815) 397-5151.
- F. Separation Membrane For Aluminum Metals: Self adhering, self sealing, rubberized asphalt sheet membrane.
 - 1. Physical Properties:
 - a. Thickness: 40 mils minimum ASTM D 3767 Method A.
 - b. Tensile strength: 250 psi ASTM D 412.
 - c. Elongation (ultimate failure of the rubberized asphalt) 250% ASTM D 412 Die C Modified).
 - d. Permeance: 0.05 perms max.) ASTM E 96.
 - 2. “Ice And Water Shield” by W.R. Grace Co., 62 Whittemore Ave., Cambridge, MA 02140, (800) 354-5414; “Deck Guard” by Polyguard Products Inc., P.O. Box 755, Ennis, TX 75120, (800) 541-4994; “MetalSeal” by NEI Advanced Composite Technology, 50 Pine Road, Brentwood, NH, (800) 998-4634.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install nailers and blocking true to line and plane within a tolerance of 1/8 inch in 10 feet.
- B. Fit joints neatly with no more than 1/16 inch space between abutting members.
- C. Do not install nailers or blocking across bonding expansion joints.
- D. Attach nailers and blocking securely as required to properly support the items that will be attached to them.
- E. Space fasteners equally at not more than 16 inches on center and 4 inches from each end of each member, unless noted otherwise. Secure the nailers and blocking with the following types of fasteners:
 - 1. To Cast-In-Place Concrete, Solid Concrete Masonry Units, and Brick: Use expansion anchors or self-threading masonry screws.
 - 2. To Faces of Hollow Concrete Masonry Units: Use toggle bolts.
 - 3. To Tops of Hollow Concrete Masonry Units: Use anchor bolts extending to course below, embedded in 3000 psi concrete filled cores.
 - 4. To Wood: Use nails or screws.
 - 5. To Metal: Use bolts or self-tapping screws.
- F. Countersink fasteners if they interfere with the proper installation of items to be attached to the nailers and blocking.

3.02 APPLICATION OF SEPARATION MEMBRANE

- A. Installing Separation Membrane:
 - 1. Install 1 ply of underlayment over the entire horizontal and vertical surface of pressure treated wood nailers and blocking lapping each ply 2

inches over the preceding ply so that no aluminum material comes in contact with pressure treated wood.

END OF SECTION