

PART I – GENERAL**WORK SPECIFIED HEREIN**

- All labor, materials, equipment and services necessary to furnish and install the rough carpentry and related items as indicated or specified.

PRODUCT DELIVERY, STORAGE AND HANDLING

- Carefully store all lumber delivered to the site off the ground in a manner to assure proper drainage, ventilation and protection from the weather.

SUBMITTALS

- Unless otherwise notes, the contractor shall prepare all shop drawings, product literature, etc. only as required to properly coordinate and construct the project.
- Review of submittals by the Professional of Record is limited to specific shop drawings as called for in the Project Manual.

GENERAL**Grades:**

- Use CLS grade-marked lumber conforming to Standard Grading Rules for Canadian Lumber published by National Lumber Grades Authority.

Lumber:

- For each use, comply with CAN/CSA O41, kiln dried to maximum moisture content of 8%, dressed 4 sides.

Plywood:

- Softwood plywood meeting CSA O121 or CSA O151, cross-banded, sanded G2S, thickness as indicated.

Medium Density Fibreboard (MDF):

- Meeting ASTM D1037 and ANSI A208.2, Premium Grade for interior use, minimum 750 kg/m³ (47 lbs/ft³) density; formaldehyde emissions 0.30 ppm or less per 0.424 m²/m³ (0.13ft²/ft³) of room volume.

COORDINATION

- Keep carpentry materials dry during delivery. Store lumber and plywood in stacks. Protect bottom of stacks against contact with damp or wet surfaces. Protect exposed materials against weather. Do not store dressed or treated lumber or plywood outdoors.
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- Store materials for which a maximum moisture content is specified only in areas where relative humidity has been reduced to a level where specified moisture content can be maintained.

PART II – PRODUCTS**MATERIALS****Framing Lumber:**

All framing lumber shall be Group D (SPF), No. 2 grade or better.

Plywood:

13 mm Douglas Fir or Western Softwood panels to CSA O325, 1220 mm x 2440 mm (48" X 96") (or as indicated).

Miscellaneous Lumber:

Provide wood for support or attachment of other work such as cant strips, bucks, nailers, blocking, furring, grounds, stripping and similar members. Provide lumber of the sizes shown or specified, worked to shapes shown, and as follows:

- Moisture Content: 8% maximum for all lumber items not specified to receive wood preservatives treatment.
- Grade: Construction grade light framing size lumber of D (SPF) species or board size lumber, as required. Provide Construction Grade boards to CAN/CSA O141.
- Concealed plywood interior standard grade, interior type.
- Backing panels for electrical or telephone equipment standard grade interior type plywood with exterior glue.

Anchorage and Fastening Materials:

Select proper type, size, material and finish for each application. Comply with the following:

- Nails and Staples: *CSA B111*
- Wood Screws: *ASTM C 954*
- Bolts, hexagon and square: *Hot dipped galvanized to CSA G164 or Grade A to ASTM A307.*
- Bolts, round head: *Hot dipped galvanized to CSA G164*
- Nuts: *Hot dipped galvanized to CSA G164*
- Washers: *Hot dipped galvanized to CSA G164*
- Lag Screws or Lag Bolts: *Hot dipped galvanized to CSA G164*
- Expansion Shields, Expansion Nails and Drive Screw Devices: *Hot dipped galvanized to CSA G164*
- Toggle Bolts: *Hot dipped galvanized to CSA G164*
- Bar or strap Anchors: *ASTM A525 size coated steel, 1.2 mm (18 gauge) minimum.*
- Metal Framing Connectors: *MGA Connectors, Simpson Strong-Tie, USP Lumber Connectors.*

Wood Preservative Treatment:

Treat wood, including lumber and plywood, as specified herein to be treated, to comply with the applicable requirements of CAN/CSA O80.

Pressure treat the following items with water borne preservatives for above-ground use, complying with CAN/CSA O80.20M:

- Wood cants, nailers, blocking, stripping and similar members in connection with roofing, flashing, vapor barriers and waterproofing (except plywood sheathing).
- Wood sills, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete or below grade. Foundation Grade redwood, grade marked, is acceptable for wood sills in lieu of treated lumber.

FIRE RETARDANT TREATMENT

- For all wood members and plywood required by code as fire retardant treated provide pressure impregnation with Dricon fire retardant chemicals in accordance with the recommendations and quality control of CAN/CSA O80.9M, CAN/CSA O80.20M and CAN/CSA O80.27M to provide classification for flame spread of not more than 25, smoke developed of not more than 75 in accordance with CAN4 S102. Each piece or bundle of fire-retardant treated material or panel to bear ULC inspection label or stamp attesting to FRS rating indicating flame spread, smoke developed, and fuel contributed classification meeting AWPA standard C20 and C27 for Type A Use.

PART III – EXECUTION

INSTALLATION

- Use only sound, thoroughly seasoned, well manufactured materials of the longest practical lengths and sizes to minimize jointing.
- Use materials free from warp, which cannot be easily corrected by anchoring and attachment. Sort out and discard warped material and material with other defects, which would impair the quality of the work.
- Securely attached carpentry work to substrates by anchoring and fastening as shown and as required by recognized standards. Provide washers under bolt heads and nuts in contact with wood.
- Nail plywood to comply with CSA recommendations.
- Set carpentry work accurately to required levels and lines with members plumb and true and accurately cut and fitted.
- Shim with metal or slate for full bearing on concrete or masonry substrates.
- Attachment and Anchorage:
- Use common wire nails, except as otherwise shown or specified herein. Do not wax or lubricate fasteners that depend on friction for holding power. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; predrill as required. Do not drive threaded friction type fasteners; turn into place. Tighten bolts and lag screws at installation and retighten as required for tight connections prior to closing in or at completion of work. Counter

sink nail heads on exposed carpentry work and fill holes, use finishing nails for finish work.

WOOD FRAMING INSTALLATION

- Nail or spike members in accordance with code requirements. All framing 406 mm (16") o.c. unless otherwise noted.
- Cut framing square on bearings, closely fit, accurately set to required lines and levels. Secure rigidly in place at bearings and connections. Do not use shims for leveling on wood or metal bearings. Use steel shims with full bearing on masonry or concrete substrates.
- Frame members for passage of pipes and ducts to avoid cutting structural members. Do not cut, notch or bore framing members for passage of pipes or conduits without Consultant's permission. Reinforce framing members as directed where damaged by cutting. Provide Simpson NS nail stoppers over utilities that penetrate framing members, nailing with 8d nails.

WOOD GROUNDS, NAILERS AND BLOCKING

- Provide wherever shown and where required for screeding or attachment of other work. Form to shapes as shown and cut as required for true line and level of work to be attached.
- Provide solid wood backing and wood blocking inside stud wall construction for all wall mounted equipment, accessories, and toilet rooms.
- Coordinate location with other work involved; refer to shop drawings of such work.
- Attach to substrates securely with anchor bolts and other attachment devices as shown and as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown.
- Set true to line and level, plumb, with intersections true to required angle. Build into masonry as work progresses, cutting to fit masonry unit size involved. Anchor to form work before concrete placement.
- Provide grounds of dressed, preservative treated, key-beveled lumber not less than 38 mm (1-1/2") wide and of the thickness required to bring fact of ground to exact thickness of finish material involved. Remove temporary grounds when no longer required.

WOOD FURRING

Install plumb and level with closure strips at all edges and openings. Shim with wood as required.

END OF SECTION