

Approved: 2002-12-04

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .3 Section 01 61 00 - Common Product Requirements.
- .4 Section 01 45 00 - Quality Control.
- .5 Section 07 92 00 - Joint Sealing.

1.2 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.
 - .2 ASTM D2832-92(R1999), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.
 - .3 ASTM D5116-97, Standard Guide For Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.
- .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC)
 - .1 AWMAC Quality Standards for Architectural Woodwork , 1994.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
- .4 Canadian Standards Association (CSA)
 - .1 CSA B111-74(R1998), Wire Nails, Spikes and Staples.
 - .2 CSA O112.4-M1977(R1999), Standards for Wood Adhesives.
 - .3 CSA O112.5-Series-M-1977(R1999), Urea Resin Adhesives for Wood (Room- and High-Temperature Curing).
 - .4 CSA O112.7-Series M-1977(R1999), Resorcinol and Phenol-Resorcinol Resin Adhesives for Wood (Room- and Intermediate-Temperature Curing).
 - .5 CSA O115-M1982(R2001), Hardwood and Decorative Plywood.
 - .6 CSA O121-M89(R1998), Douglas Fir Plywood.
 - .7 CAN/CSA O141-91R1999, Softwood Lumber.
 - .8 CSA O151-M1978(R1998), Softwood Plywood.
 - .9 CSA O153-M1980(R1998), Poplar Plywood.
 - .10 CSA Z760-94, Life Cycle Assessment.
- .5 Environmental Choice Program (EPC)

- .1 ECP-44-92, Adhesives.
- .2 ECP-45-92, Sealants and Caulking Compounds.
- .3 ECP-76-98, Surface Coatings.
- .6 International Organization for Standardization (ISO)
 - .1 ISO 14040-97, Environmental Management-Life Cycle Assessment - Principles and Framework.
 - .2 ISO 14041-98, Environmental Management-Life Cycle Assessment - Goal and Scope Definition and Inventory Analysis.
- .7 National Electrical Manufacturers Association (NEMA)
 - .1 NEMA LD-3-95.
- .8 National Hardwood Lumber Association (NHLA)
 - .1 Rules for the Measurement and Inspection of Hardwood and Cypress , January 1996.
- .9 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber , 2000.

1.3 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .1 Scales: profiles full size, details 1/2 full size.
- .3 Indicate materials, thicknesses, finishes and hardware.
- .4 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.

1.4 SAMPLES

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit duplicate samples: sample size 300 x 300 mm.
- .3 Submit duplicate colour samples of laminated plastic for colour selection.
- .4 Submit duplicate samples of laminated plastic joints, edging, cutouts and postformed profiles.

1.5 MOCK-UPS

- .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control.
- .2 Shop prepare one base cabinet unit with counter top, complete with hardware and shop applied finishes, and install on project in designated location.

- .3 Allow 24 hours for inspection of mock-up by Departmental Representative before proceeding with this work.
- .4 When accepted, mock-up will demonstrate minimum standard for this work. Mock-up may not remain as part of finished work.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, handle, store and protect materials of this section in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Protect millwork against dampness and damage during and after delivery.
- .3 Store millwork in ventilated areas, protected from extreme changes of temperature or humidity.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Set aside damaged wood for acceptable alternative uses (e.g. bracing, blocking, cripples, bridging, finger-joining, or ties). Store this separated reusable wood waste convenient to cutting station and area of work.
- .2 Separate corrugated cardboard in accordance with Waste Management Plan and place in designated areas for recycling.
- .3 Do not burn scrap at the project site.
- .4 Fold up metal banding, flatten, and place in designated area for recycling.

Part 2 Products

2.1 MATERIALS

- .1 Softwood lumber: unless specified otherwise, S4S, moisture content 15 % or less in accordance with following standards:
 - .1 CAN/CSA-O141.
 - .2 NLGA Standard Grading Rules for Canadian Lumber.
 - .3 AWMAC custom grade, moisture content as specified.
- .2 Machine stress-rated lumber is acceptable for all purposes.
- .3 The manufacturing process must adhere to Lifecycle Assessment (LCA) Standards as per ISO 14040/14041 LCA Standards, CSA Z760 94 Life Cycle Assessment.
- .4 Hardwood lumber: moisture content 15 % or less in accordance with following standards:
 - .1 National Hardwood Lumber Association (NHLA).
 - .2 AWMAC custom premium grade, moisture content as specified.
- .5 Douglas fir plywood (DFP): to CSA O121, standard construction.

- .6 Canadian softwood plywood (CSP): to CSA O151, standard construction.
- .7 Hardwood plywood: to CSA O115.
- .8 Poplar plywood (PP): to CSA O153, standard construction.
- .9 Birch plywood: to AWMAC Select White.
- .10 Laminated plastic for flatwork: to Section 06 47 00 – Plastic Laminate Finishing.
- .11 Nails and staples: to CSA B111.
- .12 Wood screws: copper brass stainless steel steel plain, type and size to suit application.
- .13 Splines: wood.
- .14 Sealant: to Section 07 92 00 – Joint Sealants.

2.2 MANUFACTURED UNITS

- .1 Casework.
 - .1 Fabricate caseworks to AWMAC custom quality grade.
 - .2 Furring, blocking, nailing strips, grounds and rough bucks and sleepers.
 - .1 Board sizes: "Standard" or better grade.
 - .2 Dimension sizes: "Standard" light framing or better grade.
 - .3 Case bodies (ends, divisions and bottoms).
 - .1 Softwood and poplar plywood CSP or PP Bgrade, square edge, 19 mm thick.
 - .4 Backs.
 - .1 Softwood and poplar plywood CSP or PP Bgrade, square edge, 13 mm thick.
- .2 Drawers
 - .1 Fabricate drawers to AWMAC custom grade supplemented as follows:
 - .2 Sides: pre-fabricated metal drawer side/slide system, with non-toxic epoxy powder coat or enamel finish.
 - .1 Lengths to suit full extension of drawer.
 - .3 Backs.
 - .1 Softwood and poplar plywood CSP or PP Bgrade, square edge, 13 mm thick.
 - .4 Bottoms.
 - .1 Softwood and poplar plywood CSP or PP Bgrade, square edge, 13 mm thick.
 - .5 Fronts.
 - .1 Softwood and poplar plywood CSP or PP Bgrade, square edge, 19 mm thick.
- .3 Casework Doors

- .1 Fabricate doors to AWMAC custom grade supplemented as follows:
- .2 Softwood and poplar plywood CSP or PP B grade, square edge, 19 mm thick.

2.3 FABRICATION

- .1 Set nails and countersink screws apply plain wood filler to indentations, sand smooth and leave ready to receive finish.
- .2 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.
- .3 Shelving to cabinetwork to be adjustable unless otherwise noted.
- .4 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
- .5 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
- .6 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .7 Ensure adjacent parts of continuous laminate work match in colour and pattern.
- .8 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 3000 mm. Keep joints 600 mm from sink cutouts.
- .9 Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
- .10 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.
- .11 Apply laminate backing sheet to reverse side of core of plastic laminate work.
- .12 Apply laminated plastic liner sheet to interior of cabinetry where indicated.

Part 3 Execution

3.1 INSTALLATION

- .1 Do architectural woodwork to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
- .2 Install prefinished millwork at locations shown on drawings. Position accurately, level, plumb straight.
- .3 Fasten and anchor millwork securely. Provide heavy duty fixture attachments for wall mounted cabinets.

- .4 Use draw bolts in countertop joints.
- .5 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.
- .6 At junction of plastic laminate counter back splash and adjacent wall finish, apply small bead of sealant.
- .7 Apply water resistant building paper over wood framing members in contact with masonry or cementitious construction.
- .8 Fit hardware accurately and securely in accordance with manufacturer's written instructions.
- .9 Site apply laminated plastic to units as indicated. Adhere laminated plastic over entire surface. Make corners with hairline joints. Use full sized laminate sheets. Make joints only where approved. Slightly bevel arises.
- .10 For site application, offset joints in plastic laminate facing from joints in core.

3.2 CLEANING

- .1 Clean millwork and cabinet work, inside cupboards and drawers, and outside surfaces.
- .2 Remove excess glue from surfaces.

3.3 PROTECTION

- .1 Protect millwork and cabinet work from damage until final inspection.

END OF SECTION