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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | November 13, 2009 | Modified ‘Related Section’ |
| 3 | June 11, 2012 | Addition of References and Replacement Parts sections on this page |
| 4 | July 5, 2012 | Reformatted to Reduce White Space |
| 5 | March 4, 2015 | First draft review, incorporation of some parts of TW and NL specifications. (AV) |
| **6** | **October 19, 2015** | **Updated, Finalized Specification – Legal Reference eDOCS #6263236 v3 (AV)** |
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NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

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**The on-line copy is the current version of the document.**

# GEneral

## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *Contractor is responsible for coordination of the Work.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### *[List Sections specifying products installed but not supplied under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### *[List Sections specifying related requirements.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

### Section 01300 – Submittals.

### Section 07900 – Joint Sealers.

### Section 09900 – Painting and Protective Coatings.

## References

*[Delete .1 if Section 01060 – Regulatory Requirements is included in Contract Documents.]*

### Comply with the latest edition of the following statutes, codes, standards, and all amendments thereto:

#### Latest edition of Listed Standards and Codes approved by Authorities Having Jurisdiction.

#### CSA B111-1974 (R2003), Wire Nails, Spikes and Staples.

#### CSA O121-08 (R2013), Douglas Fir Plywood.

#### CAN/CSA O141-05 (R2014), Softwood Lumber.

#### CSA O151-09 (R2014), Canadian Softwood Plywood.

#### CSA O153-13, Poplar Plywood.

#### CAN/CGSB 11.3-M87, Hardboard.

#### CAN/CGSB 71.20-M88, Adhesive, Contact, Brushable.

#### AWI, Architectural Woodwork Standards, 2nd edition.

#### National Lumber Grades Authority (NLGA), Standard Grading Rules for Canadian Lumber December 2010.

#### NEMA LD 3:2005, High-Pressure Decorative Laminates

#### National Hardwood Lumber Association (NHLA) Rules for the Measurement and Inspection of Hardwood and Cypress January [1996].

#### American National Standards Institute (ANSI)

##### ANSI A208.1 (2009), Particleboard

##### ANSI A208.2 (2009), Medium Density Fiberboard (MDF) for Interior Applications.

#### American Society for Testing and Materials (ASTM)

##### ASTM E1333-14, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.

##### ASTM D2369-10(2015)e1, Standard Test Method for Volatile Content of Coatings.

##### ASTM D2332-92(2011), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.

#### Architectural Woodwork Manufacturers Association of Canada (AWMAC)

##### Architectural Woodwork Standards Manual (Edition 2).

## Samples

### Submit in accordance with Section 01300 – Submittals. Sample size 300 mm x 300 mm. Provide two samples of laminated plastic for colour selection.

## Shop Drawings

### Submit shop drawings in accordance with Section 01300 - Submittals.

### Scale: Profiles full size, details 1/2 full size.

### Indicate details of construction, profiles, jointing, fastening and other related details.

### Indicate all materials, thicknesses, finishes and hardware.

### Indicate locations of all service outlets in casework, and all connections, attachments, anchorage and location of exposed fastenings.

## Product Delivery, Storage

### Protect materials against dampness during and after delivery.

### Store materials in ventilated areas, protected from extreme changes of temperature or humidity.

## Mock-ups

### *[Consultant to specify requirements of mock-up if required.]*

### Construct mock-ups in accordance with Section 01300 - Submittals.

### Allow two Working Days for inspection of mock-up by the Consultant before proceeding with this work.

### When accepted by the Consultant and Region, mock-up will demonstrate minimum standard for this work. Mock-up may remain as part of the finished work.

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

# PRODUCTS

## Lumber Material

### Softwood lumber: Unless specified otherwise, S4S, moisture content 19% or less in accordance with the following standards:

#### CAN/CSA O141-05 (R2014).

#### NLGA Standard Grading Rules for Canadian Lumber.

#### AWMAC premium grade, moisture content as specified in the Contract Documents.

### Machine stress rated lumber is acceptable for all purposes.

## Panel Material

### Douglas Fir Plywood (DFP): To CSA O121-08 (R2013), standard construction.

### Canadian Softwood Plywood (CSP): To CSA O151-09 (R2014), standard construction.

### Poplar Plywood (PP): To CSA O153-13, standard construction.

### Interior mat formed wood particleboard: To *[Consultant to amend with relevant current standard given O188.1 has been withdrawn]*.

### Hardboard:

#### To CAN/CGSB 11.3-M87.

#### Manufactured such that formaldehyde emissions do not exceed 0.15 ppm (180 g/m3) when tested in accordance with ASTM E1333-14.

### Medium Density Fiberboard (MDF): To ANSI A208.2 (2009), density 769 kg/m3.

### Laminated Plastic for Flatwork: To NEMA LD3, Grade VGL, Type [HD] [S] [LD], [\_\_\_] mm thick; based on [solid] [woodgrain] [printed pattern] [metallic], [integral colour throughout,] [multilayered] colour range with [gloss] [satin] [furniture] [matt] [textured] [embossed] finish.

### Laminated Plastic for Post-forming Work: To NEMA LD 3:2005, Grade VGL, Type [HD] [S] [LD], [\_\_\_] mm thick; based on [solid] [woodgrain] [printed pattern] [metallic], [integral colour throughout,] [multilayered] colour range with [gloss] [satin] [furniture] [matt] [textured] [embossed] finish

### Laminated Plastic Backing Sheet: Grade BK, Type [HD] [S] [LD], not less than 0.5 mm thick or same thickness [and colour] as face laminate.

### Laminated Plastic Liner Sheet: Grade GP, Type [HD] [S] [LD], [\_\_\_] mm thick, [white] colour.

### Laminated Plastic Adhesive: [Urea resin adhesive in accordance with CSA O112.5 *[Consultant to provide alternative standard and amend]*] [contact adhesive in accordance with \_\_\_\_\_\_\_\_\_\_\_ *[Consultant to provide alternate standard given that 71.20-M88 has been withdrawn]*] [resorcinol resin adhesive to CSA O112.7] [polyvinyl adhesive in accordance with CSA O112.4 *[Consultant to provide alternative standard and amend*]] [two component epoxy thermosetting adhesive].

### Test for acceptable VOC emissions in accordance with ASTM D2369-10(2015) and ASTM D2832-92(2011).

### Acceptable Materials:

#### [Consultant to provide 3 acceptable suppliers].

#### Approved Equivalent.

## Manufactured Units

### Casework:

#### Fabricate caseworks to AWMAC premium quality grade as detailed in the Architectural Woodwork Standards Manual (Edition 2).

#### Furring, blocking, nailing strips, grounds and rough bucks and sleepers.

##### S2S is acceptable for [\_\_\_\_\_].

##### Board sizes: "Standard" or better grade.

##### Dimension sizes: "Standard" light framing or better grade.

#### Framing [\_\_\_\_\_] species, NLGA NHLA [\_\_\_\_\_] grade, para [\_\_\_\_\_].

#### Case bodies (ends, divisions and bottoms).

##### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade, square edge, [\_\_\_\_\_] mm thick.

##### Hardwood plywood:

.1 Thickness [\_\_\_\_\_] mm.

.2 Number of plies: [\_\_\_\_\_].

.3 Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.4 Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_]. grade, [\_\_\_\_\_] cut, matching requirement.

.5 Core: [\_\_\_\_\_].

.6 Bond: Type II.

.7 Sanding: [no sanding] [touch sanding] [regular sanding].

.8 Grain direction [\_\_\_\_\_]

##### Particle board, grade [\_\_\_\_\_], [\_\_\_\_\_] mm thick .

##### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

#### Backs:

##### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade , square edge, [\_\_\_\_\_] mm thick.

##### Hardwood plywood:

.1 Thickness: [\_\_\_\_\_] mm.

.2 Number of plies: [\_\_\_\_\_].

.3 Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.4 Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.5 Core: [\_\_\_\_\_].

.6 Bond: Type II.

.7 Sanding: [no sanding] [touch sanding] [regular sanding].

.8 Grain direction [\_\_\_\_\_].

##### Particleboard, grade [\_\_\_\_\_],[\_\_\_\_\_] mm thick.

##### Waferboard, grade P [\_\_\_\_\_],[\_\_\_\_\_] mm thick.

##### Hardboard, Type [\_\_\_\_\_][\_\_\_\_\_] mm thick

##### Fiberboard, [\_\_\_\_\_] mm thick .

##### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

#### Shelving:

##### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade, square edge, [\_\_\_\_\_] mm thick.

##### Hardwood plywood:

.1 Thickness: [\_\_\_\_\_] mm.

.2 Number of plies: [\_\_\_\_\_].

.3 Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.4 Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.5 Core: [\_\_\_\_\_].

.6 Bond: Type II.

.7 Sanding: (no sanding) (touch sanding) (regular sanding).

.8 Grain direction [\_\_\_\_\_].

##### Particle board, grade [\_\_\_\_\_],[\_\_\_\_\_] mm thick .

##### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

##### Edge banding: provide 10 mm thick solid matching wood strip on [plywood] [particleboard] edges 12 mm or thicker, exposed in final assembly. Strips same width as [plywood] [particleboard].

### Drawers

#### Fabricate drawers to AWMAC premium grade as detailed in the Architectural Woodwork Standards Manual (Edition 2) and supplemented as follows:

#### Sides and Backs:

##### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade , square edge, [\_\_\_\_\_] mm thick.

##### Hardwood plywood:

.1 Thickness: [\_\_\_\_\_] mm.

.2 Number of plies: [\_\_\_\_\_].

.3 Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.4 Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

.5 Core: [\_\_\_\_\_].

.6 Bond: Type II.

.7 Sanding: [no sanding] [touch sanding] [regular sanding].

.8 Grain direction [\_\_\_\_\_].

##### Fiberboard, [\_\_\_\_\_] mm thick .

##### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

#### Bottoms:

##### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade, square edge, [\_\_\_\_\_] mm thick.

##### Hardwood plywood:

###### Thickness: [\_\_\_\_\_] mm.

###### Number of plies: [\_\_\_\_\_].

###### Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

###### Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

###### Core: [\_\_\_\_\_].

###### Bond: Type II.

###### Sanding: [no sanding] [touch sanding] [regular sanding].

###### Grain direction: [\_\_\_\_\_]

##### Hardboard, Type [\_\_\_\_\_], [\_\_\_\_\_] mm thick .

##### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

#### Fronts:

##### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade, square edge, [\_\_\_\_\_] mm thick.

##### Hardwood plywood:

###### Thickness: [\_\_\_\_\_] mm.

###### Number of plies: [\_\_\_\_\_].

###### Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

###### Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement.

###### Core: [\_\_\_\_\_].

###### Bond: Type II.

###### Sanding: [no sanding] [touch sanding] [regular sanding].

###### Grain direction [\_\_\_\_\_].

##### Particleboard, grade [\_\_\_\_\_],[\_\_\_\_\_] mm thick.

##### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

### Casework Doors:

#### Fabricate doors to AWMAC premium grade as detailed in the Architectural Woodwork Standards Manual (Edition 2) and supplemented as follows:

#### Softwood and poplar plywood DFP or CSP or PP [\_\_\_\_\_] grade, square edge, [\_\_\_\_\_] mm thick.

#### Hardwood plywood:

##### Thickness: [\_\_\_\_\_] mm.

##### Number of plies: [\_\_\_\_\_].

##### Face veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement .

##### Back veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut, matching requirement .

##### Core: [\_\_\_\_\_].

##### Bond: Type II.

##### Sanding: [no sanding] [touch sanding] [regular sanding].

##### Grain direction [\_\_\_\_\_].

#### Particleboard, grade [\_\_\_\_\_],[\_\_\_\_\_] mm thick .

#### Hardboard, Type [\_\_\_\_\_],[\_\_\_\_\_] mm thick .

#### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

## Fabrication

### Set nails and countersink screws, apply [stained] [plain] wood filler to indentations, sand smooth and leave ready to receive finish.

### Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.

### Shelving to cabinetwork to be adjustable unless otherwise noted.

### Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.

### Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.

## Finishing

### Specify finishes including colour and texture for all elements. Refer to Section 09900 – Painting and Protective Coatings, for paint finish.

### *[Consultant to provide project specific details]*

## Accessories

### Nails and Staples: To CSA B111-1974 (R2003); galvanized to *[Consultant to amend to replacement standard for CAN/CSA G164 which has been withdrawn]* for exterior work, interior humid areas and for treated lumber; plain [copper], [stainless steel] finish elsewhere.

### Wood Screws: To CSA B35.4 *[Consultant to provide alternate standard given that CSA B35.4 has been withdrawn]* stainless steel, type and size to suit application.

### Splines: Wood.

### Sealants: As specified in Section 07900 – Joint Sealers.

### Adhesive: As recommended by the manufacturer.

# EXECUTION

## Installation

### Perform finish carpentry in accordance with Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.

### Perform architectural woodwork in accordance with [Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC)], except where specified otherwise.

### Install prefinished millwork at locations shown on the Drawings. Position accurately for all mounted cabinets.

### Use draw bolts in countertop joints.

### Scribe and cut as required to fit abutting walls and to fit properly into recessed and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.

### At junction of plastic laminate counter back splash and adjacent wall finish, apply small bead of sealant.

### Apply water resistant building paper over wood framing members in contact with masonry or cementitious construction.

### Fit hardware accurately and securely in accordance with the manufacturer’s directions.

## Construction

### Fastening:

#### Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.

#### Design and select fasteners to suit size and nature of the components being joined. Use proprietary devices as recommended by the manufacturer.

#### Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round cleanly cut hole and plug with wood plug to match material being secured.

#### Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.

### Standing and Running Trim:

#### Butt and cope internal joints of baseboards to make snug, tight, joint. Cut right angle joints of casing and base with mitred joints.

#### Fit backs of baseboards and casing snugly to wall surfaces to eliminate cracks at junction of base and casing with walls.

#### Make joints in baseboard, where necessary using a 45 degrees scarf type joint.

### Interior and exterior frames.

#### Set frames with plumb sides level heads and sills and secure.

#### Paneling: Installation according to AWMAC as detailed in the Architectural Woodwork Standards Manual (Edition 2).

#### Secure paneling and perimeter trim using adhesive recommended for purpose by manufacturer. Fill nail holes caused by temporary fixing with filler matching wood in colour.

#### Secure paneling and perimeter trim using concealed fasteners.

#### Secure paneling and perimeter trim using counter sunk screws plugged with matching wood plugs.

### Shelving:

#### Install shelving on ledgers shelf brackets.

#### [Specify here miscellaneous hardware items. Items that should be included are door numbers, door signs, coat hooks, closet rod brackets, baluster screws, handrail brackets and valance brackets]

### Hardware:

#### Install [\_\_\_\_\_], location [\_\_\_\_\_].

## Cleaning

### Clean [millwork] [and] [cabinet work] [inside cupboards (and) drawers] [and] [outside surfaces].

## Protection

### Protect [millwork] [and] [cabinet work] from damage until [final inspection].

## Schedules

*[Provide schedule for the following – Consultant to amend wording to define the provision of a detailed schedule from the Contractor]*

### Standing and Running Trim:

#### Exterior:

##### Grade: [\_\_\_\_\_].

##### Solid stock: [\_\_\_\_\_] species.

#### Interior:

##### Grade: [\_\_\_\_\_].

##### Solid stock: [\_\_\_\_\_] species.

##### Veneered stock: [\_\_\_\_\_] veneer, [\_\_\_\_\_] grade, [\_\_\_\_\_] cut.

### Exterior Frames:

#### Grade: [\_\_\_\_\_].

#### Frames to be solid wood [\_\_\_\_\_] species.

#### Construction: AWMAC Design Detail Sheet No. \_\_\_\_\_\_ as detailed.

### Interior Frames:

#### Grade: [\_\_\_\_\_].

#### Frames to be solid wood [\_\_\_\_\_] species.

#### Construction:

##### Profile: [(AWMAC Design Detail Sheet No.[\_\_\_\_\_], Type (1)(2)(3)(4)(5)) (as detailed)].

##### Corner: [(AWMAC Design Detail Sheet No.[\_\_\_\_\_], Type (1 Rabbet) (2 Blind Dado) (3 Mitre)) (as detailed)].

### Shelving:

#### Softwood and popular plywood DFP or CSP or PP [\_\_\_\_\_] grade, [\_\_\_\_\_] grade, (square) edge, [\_\_\_\_\_] mm thick.

#### Particleboard, grade [\_\_\_\_\_],[\_\_\_\_\_] mm thick.

#### Solid wood: [\_\_\_\_\_] species, [\_\_\_\_\_] grade, [\_\_\_\_\_] mm thick.

#### Melamine: [\_\_\_\_\_].

#### Edge banding: provide (10) mm thick solid matching wood strip on (plywood) [particleboard] edges (12) mm or thicker, exposed in final assembly. Strips same width as [plywood][particleboard].

**END OF SECTION**