

**Part 1            General**

**1.1                RELATED REQUIREMENTS**

- .1    Section 05 50 00 – Metal fabrications
- .2    Section 06 10 00 – Rough carpentry.
- .3    Section 06 40 00 – Architectural woodwork.
- .4    Section 09 21 16 – Gypsum board assemblies.
- .5    Section 09 22 16 – Non-structural metal framing.
- .6    Section 09 91 23 – Painting – interior works
- .7    Section 12 50 00 – Furniture and manufactured accessories

**1.2                REFERENCES**

- .1    American National Standards Institute (ANSI)
  - .1    ANSI A208.1-09, Particleboard.
  - .2    ANSI A208.2-09, Medium Density Fibreboard (MDF) for Interior Applications.
  - .3    ANSI/HPVA HP-1-10, American National Standard for Hardwood and Decorative Plywood.
- .2    Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
  - .1    Architectural Woodwork Quality Standards, 1st edition, 2009.
- .3    ASTM International
  - .1    ASTM A123/A123M-09, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- .4    Canadian General Standards Board (CGSB)
  - .1    CAN/CGSB-11.3-M87, Hardboard.
- .5    CSA International
  - .1    CSA B111-74(R2003), Wire Nails, Spikes and Staples.
  - .2    CSA O121-08, Douglas Fir Plywood.
  - .3    CSA O141-05(R2009), Softwood Lumber.
  - .4    CSA O151-09, Canadian Softwood Plywood.
  - .5    CSA O153-M1980 (R2008), Poplar Plywood.
  - .6    CAN/CSA-Z809-08, Sustainable Forest Management.
- .6    Forest Stewardship Council (FSC)
  - .1    FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
- .7    National Lumber Grades Authority (NLGA)
  - .1    Standard Grading Rules for Canadian Lumber 2008.

- .8 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
  - .1 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.
- .9 Sustainable Forestry Initiative (SFI)
  - .1 SFI-2010-2014 Standard.
- .10 Underwriters Laboratories of Canada (ULC)
  - .1 CAN/ULC-S104-10, Standard Method for Fire Tests of Door Assemblies.
  - .2 CAN/ULC-S105-09, Standard Specification for Fire Door Frames.

### **1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for proposed plywood, particleboard, oriented strand board (OSB), medium density fiberboard (MDF) .Data sheets must include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Submit (two) copies of material safety data sheets required in terms of the WHMIS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Shop Drawings:
  - .1 Submit drawings stamped and signed by professional competent engineer registered or licensed in Province of Québec Canada.
  - .2 The drawings must indicate details of construction, profiles, jointing, fastening and other related details.
  - .3 The drawings must indicate materials, thicknesses, finishes and hardware.
- .4 Samples:
  - .1 Submit for review and acceptance samples of each proposed finish carpentry element.
  - .2 Samples will be returned to contractor for inclusion into work.
- .5 Certifications: submit certificates signed by manufacturer certifying materials comply with specified performance characteristics and physical properties.
- .6 Test and Evaluation Reports: submit certified test reports for composite wood from approved independent testing laboratories, indicating compliance with specifications for specified performance characteristics and physical properties.

### **1.4 QUALITY ASSURANCE**

- .1 Lumber grading: by grade stamp of agency certified by Canadian Lumber Standards Accreditation Board (CLSAB).
- .2 Sustainable Standards Certification:

- .1 Certified Wood: submit listing of wood products and materials used in accordance with CAN/CSA-Z809 or FSC or SFI.
- .3 Wood sheet products grading: Plywood, particleboard, oriented strand board (OSB) and wood based composite panels according to pertinent CSA and ANSI standards.
- .4 Wood fire rated frames and panels: listed and labelled by an organization accredited by Standards Council of Canada to CAN/ULC-S104 and CAN/ULC-S105.

## **1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect wood products from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.
- .4 Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal.
- .5 Packaging Waste Management: remove for reuse and return of pallets, crates, padding, packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

## **1.6 ACCEPTABLE PRODUCTS AND MATERIALS**

- .1 Where a particular brand name is stipulated, see Instructions to Bidders for procedure for requesting approval of substitute materials and products

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Softwood lumber: S4S (surfaced on 4 sides), moisture content 12% or less in accordance with following standards and rules:
  - .1 CSA O141.
  - .2 CAN/CSA-Z809 or FSC or SFI certified.
  - .3 NLGA Standard Grading Rules for Canadian Lumber.
  - .4 Soft wood lumber must be concealed
  - .5 Select white pine

- .2 Hardwood lumber: moisture content 7% or less in accordance with following standards and rules:
  - .1 National Hardwood Lumber Association (NHLA).
  - .2 CAN/CSA-Z809 or FSC or SFI certified.
  - .3 AWMAC premium grade, moisture content as specified.
  - .4 White maple lumber without knots.
- .3 Wood sheet products: urea-formaldehyde free, CAN/CSA-Z809 or FSC or SFI certified.
  - .1 Douglas fir plywood (Douglas taxifolié): conforming to standard CSA O121, classification “construction” grade “standard”.
  - .2 Canadian softwood plywood (CSP): conforming to standard CSA O151, classification “construction” grade “standard”.
  - .3 Hardwood plywood: conforming to standard ANSI/HPVA HP-1.
  - .4 Poplar plywood (PP): conforming to standard CSA O153, classification “construction” grade “standard”.
  - .5 Particleboard: conforming to standard ANSI A208.1.
  - .6 Hardboard: conforming to standard CAN/CGSB-11.3.
  - .7 Medium density fibreboard (MDF): conforming to standard ANSI A208.2, density 640-800 kg/m<sup>3</sup>.
  - .8 Decorative overlaid composite panels.
    - .1 Particleboard, urea-formaldehyde free, core, to thickness indicated with decorative overlay, heat and pressure laminated with suitable resin.
    - .2 Overlay bonded to both faces where exposed two sides, and when panel material require surface on one side only, reverse side to be overlaid with a plain (buff) balancing sheet.
- .4 Support panels of glass fiber and wood particles:
  - .1 Panel composed of magnesium oxide (55.6%), magnesium chloride (27.8%), glass fiber (6.6%), wood particles (5%), perlite (3.8%), phosphate (0.2%), one side smooth and one side rough.
  - .2 Incombustible and conforming to standards ULC S-135 et ASTM E84-08.
    - .1 Acceptable product : MgO panel by Ecosphair
    - .2 Replacement materials or products: as approved by addenda in conformance with Instructions to tenderers.
  - .3 Coordinate location of these panels with section 09 68 13 – Tile carpeting.

## 2.2 ACCESSORIES

- .1 Nails and staples: to CSA B111; galvanized to ASTM A123/A123M for exterior work, interior humid areas and for treated lumber; stainless steel finish elsewhere.
- .2 Wood screws: plain stainless steel, type and size to suit application.
- .3 Adhesive and Sealants: in accordance with Section 07 92 00 - Joint Sealants.
- .4 Moldings: profiled aluminum. anodized natural, shapes as indicated.

- .5 Hardware: in stainless steel type 304 or according to indications and needs.

### **Part 3 Execution**

#### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for wood products installation in accordance with manufacturer's written instructions.
- .1 Visually inspect substrate in presence of Departmental Representative.
  - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

#### **3.2 INSTALLATION**

- .1 Do finish carpentry to Quality Standards of (AWMAC). (Architectural Woodwork Manufacturers Association of Canada).
- .2 Scribe and cut as required, fit to abutting walls, and surfaces, fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.
- .3 Form joints to conceal shrinkage.

#### **3.3 CONSTRUCTION**

- .1 Fastening:
- .1 Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.
  - .2 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
  - .3 Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round smooth cut hole and plug with wood plug to match material being secured.
  - .4 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.
  - .5 Provide nailing backings everywhere where furniture elements, equipments or accessories must be installed, and according to indications on drawings.
  - .6 Provide anchor backings for stainless steel baseboards as indicated on drawings.
- .2 Standing and running trim:
- .1 Install finishing frames around the windows, doors, dados and all woodworks according to indications on drawings.
  - .2 Wood trims are of select white pine or of white maple, according to indications.

- .3 Butt and cope internal joints of baseboards to make snug, tight, and joint. Cut right angle joints of casing and base with mitred joints.
- .4 Fit backs of baseboards and casing snugly to wall surfaces to eliminate cracks at junction of base and casing with walls.
- .5 Make joints in baseboard, where necessary using a 45degrees scarf type joint.
- .6 Install door and window trim in single lengths without splicing and according to drawings.
- .3 Interior and exterior frames:
  - .1 Set frames with plumb sides, level heads and sills/shelves and secure.
- .4 Panelling:
  - .1 Secure panelling and perimeter trim using adhesive recommended for purpose by manufacturer. Fill nail holes caused by temporary fixing with filler matching wood in colour.
  - .2 Secure panelling and perimeter trim using concealed fasteners.
  - .3 Secure panelling and perimeter trim using counter sunk screws plugged with matching wood plugs.
- .5 Stairs:
  - .1 Install stairs and handrails to location and details as indicated, use hardwood for all apparent surfaces (step, risers, baseboards, handrails).
  - .2 Make joints hair line, dowelled and glued.
  - .3 Install necessary support brackets as indicated.
  - .4 Install metal backing plates between studs at bracket locations to ensure proper support for brackets and bolts or self-tapping screws, except if a post ensures required solidity.
  - .5 Secure using counter sunk screws plugged with matching wood plugs.
  - .6 Coordinate the finishing of surfaces with section 09 91 23 – Painting-Interior new works.
- .6 Shelving:
  - .1 Install shelving as indicated.

### **3.4 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

### **3.5 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by finish carpentry installation.

**END OF SECTION**