

PART 1 GENERAL

1.1 WORK INCLUDED

- .1 This section includes site applied or fabricated items of finished carpentry including wood trim, shelving and vanities.
- .2 This section also includes mill fabricated items of architectural woodwork including cabinetry.

1.2 RELATED WORK

- .1 Sealants: Section 07 92 00
- .2 Hollow Metal Doors, Frames and Hardware: Section 08 11 14
- .3 Resilient tile and base: Section 09 65 00
- .4 Painting: Section 09 91 23

1.3 REFERENCE STANDARDS

- .1 Do millwork to Millwork Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC).
- .2 CAN/CSA 0115-M1982(R2001), Hardwood and Decorative Plywood.
- .3 CAN/CSA 0121-17, Douglas Fir Plywood.
- .4 CAN/CSA 0141-05(R2014), Softwood Lumber.
- .5 CAN/CSA 0151-17, Canadian Softwood Plywood.

1.4 SAMPLES

- .1 Submit duplicate 300mm x 300mm nominal samples of each type of panelling and each type of solid wood or plywood to receive stain or natural finish.
- .2 Submit duplicate 305mm long samples of each type of trim and moulding.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- .1 Do not deliver wood materials to site until storage areas are completed, and conditions are such that no damage or deterioration will occur to them while in storage and during installation.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Softwood lumber: to CSA 0141 and National Lumber Grades Authority requirements, with maximum moisture content of 7% for interior work,

yard lumber selected for (natural) paint finish, spruce, pine, fir species, to AWMAC premium grade.

- .2 Hardwood lumber: to National Hardwood Lumber Association (NHLA) requirements, moisture content of maximum 7%, birch species, to AWMAC premium grade.
- .3 Hardwood plywood: to CSA 0115 of thickness indicated, rotary cut face, birch species veneer of finish grade where exposed to view and sound grade where not exposed.
- .4 Canadian softwood plywood: to CSA 0151, S2S where both sides exposed to view and S1S where one side exposed, select grade.
- .5 Douglas fir plywood: to CSA 0121, G2S where both sides exposed to view and G1S where one side exposed, select grade.
- .6 Accessories:
 - .1 Nails and staples: galvanized for exterior work, interior highly humid areas and for treated lumber; plain finish elsewhere.
 - .2 Wood screws: type and size to suit application.
 - .3 Splines: metal.
 - .4 Adhesive: recommended by manufacturer.

2.2 FABRICATION

- .1 General:
 - .1 Assemble architectural woodwork in mill in units as large as possible. Design units to fit together as one unit if site assembly is required.
 - .2 Incorporate services, fixtures and trim in work of this Section as indicated on Drawings or specified in mechanical or electrical, or both. Make necessary cutouts to template information.
 - .3 Edge plywood where specified or indicated with solid wood to match face veneer, with profiled pressure glued edge joint and finished level with plywood surfaces.
- .2 Trim:
 - .1 Rout or groove backs of flat trim members.
 - .2 Kerf backs of wide flat members.
- .3 Fastening:
 - .1 Fasten work with nails generally, but use screws or special fasteners at critical joints where strain, and excessive usage and shrinkage is anticipated, and where required by specified quality grade standards.
 - .2 Glue built-up work as well as nailing and screwing.
 - .3 Blind nail unless impossible.
 - .4 Set finishing nails below finished surfaces.
- .4 Finishing:
 - .1 Finish each surface of work of specified quality grade standard where exposed or semi-exposed. Consider that all visible surfaces are

exposed, including underside of work above 1200mm from floor. Consider that underside of work within 1200mm of the floor, tops of work more than 1800mm above the floor, interiors of fitments behind opaque doors and the backs of fitment doors are semi-exposed.

.2 Fine sand surfaces level and smooth after fabrication.

2.3 CABINETWORK

- .1 Cabinets: minimum 16 mm pressed particleboard with laminated melamine finish on all exposed surfaces, colour to be selected by Consultant.
- .2 Cabinet Doors: 19 mm MDF raised panel design with manufactured finish, colour as selected by the Departmental Representative.
- .3 Cabinet hardware:
 - .1 Door hinges: white finished, 170 degree, full overlay application, concealed and self-closing.
 - .2 Door catches: magnetic type, white finished.
 - .3 Door catches: elbow type, for doors with one-leaf lock, provide on top and bottom of non-lock leaf.
 - .4 Drawer slides: Accuride, fully extendable, of quality to operate adequately for size and capacity of drawer, white in finish.
 - .5 Pilaster strips: recessed, slotted, pre-finished white steel, with shelf clips to match.
 - .6 Drawer and pulls: 100mm centres, 6mm diameter satin aluminum or satin chrome, "D" shape.
 - .7 Locks: Supply with two (2) keys.
 - .8 Coat Hooks.
 - .9 Cabinet hardware is generally noted as white in colour, but final colour selection will be by the Departmental Representative.
- .4 Refer to the Architectural drawings for details.

2.4 FABRICATION OF CABINETS

- .1 Fabricate cabinets off site as indicated on the drawings.
- .2 Set nails and screws, apply plain wood filler to indentations, sand smooth and leave ready to receive finish.
- .3 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.
- .4 Shelving to cabinetwork to be adjustable unless otherwise noted.
- .5 Factory finish casework and cabinetwork on all surfaces. On site finishing limited to touch-up only.
- .6 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.

2.6 SHELVING

- .1 Fabricate shelving units using minimum 19 mm pressed particleboard with laminated white melamine finish on all exposed surfaces. Stiffen shelving over 1200 wide from deflection.
- .2 Install shelving in locations as indicated on Architectural Drawings.

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Before commencing installation ensure that grounds, strapping and other constructions and surfaces to which work is installed are satisfactory for fitting and adequate for securing work.
- .2 Take site measurements of construction to which work of this Section must conform, and through which access must be made, before work is delivered to site to ensure that adaptation is not required which would result in construction delay.

3.2 INSTALLATION

- .1 General:
 - .1 Do finish carpentry to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
 - .2 Install work plumb, level and straight, and fasten it securely to backing to support itself and anticipated superimposed loads.
 - .3 Install fire-rated doors and frames in accordance with National Fire Codes, Volume 4, produced by National Fire Protection Association (NFPA) 80.
- .2 Fastening:
 - .1 Position items of finished carpentry work and architectural woodwork 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 cleanly cut hole and plug with wood plug to match material being secured.
 - .4 Replace items of finish carpentry and architectural woodwork with damage to wood surfaces including hammer and other bruises.
- .3 Trim:
 - .1 Install in single lengths except where material limitation makes impossible. Stagger joints where they occur and locate over solid backing for fastening.
- .4 Cutting and fitting:
 - .1 Cut mouldings with sharp true profiles.
 - .2 Cope trim and mouldings at interior corners and at returns.
 - .3 Miter trim and mouldings at exterior corners. Glue and lock shop

miters that are over 150 mm from heel to point.

.4 Scribe and joint work accurately together, and to other work, to fit tightly and with flat smooth surfaces. Fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects. Install trim or filler panels to close gaps.

.5 Installation of hollow metal frames: refer to Section 08 11 14.

.6 Installation of doors: refer to Section 08 11 14.

.7 Install finishing hardware in accordance with the manufacturer's written instructions.

.8 Cabinetry schedule and installation: install cabinetry hardware, pilaster strips and clips, hinges, drawer slides and pulls, supplied as specified.

3.3 ADJUSTMENT AND CLEANING

.1 Adjust hinged doors to swing freely and easily, to remain stationary at any point of swing, to close evenly and tightly against stops without binding, and to latch positively when doors are closed with moderate force. Adjust sliding doors to operate smoothly without binding, and to close evenly and tightly against jambs.

.2 Adjust hardware so that latches and locks operate smoothly and without binding, and closers act positively with the least possible resistance in use. Lubricate hardware if required by supplier's instructions.

.3 Clean hardware after installation in accordance with supplier's instructions.

.4 Sand clean woodwork to leave free from finished defects in any exposed part.

.5 Install resilient base around perimeters of all cabinets/benches as per Section 09 65 00 and as indicated on Architectural Drawings, Room Finish Schedule.

.6 Caulk sides, tops, bases and countertops of all cabinets/benches as per Section 07 92 00.

END OF SECTION

PART 1 GENERAL

1.1 WORK INCLUDED

- .1 This section specifies requirements for providing plastic laminate countertops for vanities and cabinetwork.

1.2 RELATED WORK

- .1 Carpentry: Section 06 10 00
- .2 Sealants: Section 07 92 00
- .3 Cabinetry: Section 12 35 53

1.3 REFERENCES

- .1 ASTM D 792-13: Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
- .2 ASTM D 2583-13a: Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcollmpressor.
- .3 ASTM E 84-16: Standard Test Method for Surface Burning Characteristics of Building Materials.
- .4 ASTM G 21-15: Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- .5 ASTM G 155-13: Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
- .6 NEMA LD 3-2005 (HDDL) High Pressure Decorating Laminates
- .7 CSA-0151-17, Canadian Soft Wood Plywood.

1.4 SAMPLES

- .1 Submit duplicate 300 x 300 mm samples of plastic laminate, in accordance with Section 01 33 00.
- .2 Submit duplicate samples of plastic laminate joints, edging, cutouts and postformed profiles.

1.5 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00.

1.6 PRODUCT HANDLING

- .1 Cover finished laminated plastic surfaces with heavy kraft paper or put in cartons during shipment. Protect installed laminated surfaces by approved means. Do not remove until immediately before final inspection.

- .2 Do not store or install materials in areas where relative humidity is less than 25% or greater than 60% at 22°C.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Solid Surface Material:
 - .1 Physical Characteristics
 - .1 Hardness (Barcol Impressor): 62; ASTM D 2583 .
 - .2 Impact Resistance: 1980 mm. drop with no fracture; NEMA LD-3, Method 3.8.
 - .3 Light Resistance -Xenon: NEMA LD-3, Method 3.3 .
 - .4 Stain Resistance: ANSI Z 124.3, modified .
 - .5 Wear and Cleanability: ANSI Z 124.3 .
 - .6 Fungi Resistance: ASTM G 21 .
 - .7 Bacterial Resistance: ASTM G 22 .
 - .8 Boiling Water Resistance: NEMA LD-3, Method 3.5 .
 - .9 High Temperature Resistance: NEMA LD-3, Method 3.6 .
 - .10 Weatherability: Delta E less than 5; ASTM G 155 .
 - .11 Specific Gravity: 1. 78 gram/cm3; ASTM D 792 .
 - .12 Approximate Weight: 1 kg/0.1 m2
 - .13 Surface Burning Characteristics: Class II and Class B; ASTM E 84.
 - .2 Seamless Solid surface Wall Panel System:
 - .1 Solid surface components:
 - .1 Acrylic resins, fire retardant mineral fillers and colouring agents. Through-the- body colour for full thickness of sheet material.
 - .2 Thickness: 6 mm
 - .3 Colour: as selected by Departmental Representative from manufacturer's standard range.
 - .3 Seamless solid surface Countertops:
 - .1 Solid surface components:
 - .1 Acrylic resins, fire retardant mineral fillers and colouring agents. Through-the- body colour for full thickness of sheet material.
 - .2 Thickness: 19 mm
 - .3 Backsplash; aprons and components: 19 mm
 - .4 Colour: as selected by Departmental Representative from manufacturer's standard range .
 - .2 Accessories:
 - .1 316 stainless steel counter brackets installed with stainless steel anchors.
 - .4 Laminated plastic for postforming work: to NEMA LD-3, Grade postforming type, satin finish, 1 mm thick minimum, based on printed pattern colour range and textured finish, as selected by the Departmental Representative.

- .5 Laminated plastic for vertical work: to NEMA LD-3 minimum 1.6 mm (0.06") thick; based on pattern colour range with satin finish.
- .6 Laminated plastic backing sheet: supplied by same manufacturer as facing sheet; same thickness and colour as face laminate. Sanded one side.
- .7 Plywood core: to CSA O151, solid two sides, 19 mm thick.
- .8 Particleboard core: to CAN3-O188.1, Grade R, sanded faces, 19 mm thick or of thickness indicated.
- .9 Laminated plastic adhesive: as recommended by manufacturer.
- .10 Sealant: clear silicone in accordance with Section 07 92 00. Mildew-resistant
- .11 Sealer: water resistant sealer or glue acceptable to laminate manufacturer. Mildew-resistant
- .12 Seam Adhesive: Manufacturer's standard adhesive for chemically bonding solid surfacing seams. Colour complementary to solid surfacing panels.
- .13 Panel adhesive: Manufacturer's standard complying with ANSI A 136.1-1967, UL listed.
- .14 Draw bolts and splines: as recommended by fabricator.
- .15 Waterproofing Membrane System: Minimum 8 mm thick fleece-backed polyethylene. Provide adhesive, all required components, products and accessories including preformed corners for complete waterproofing protection.

2.2 FABRICATION

- .1 Comply with NEMA LD-3.
- .2 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .3 Confirm adjacent parts of continuous laminate work match in colour and pattern.
- .4 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Confirm core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 2400 mm. Keep joints minimum 600 mm from sink cutouts.
- .5 Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
- .6 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.

- .7 Apply laminate backing sheet to reverse side of core of plastic laminate work.

PART 3 EXECUTION

3.1 INSTALLATION

- .1 Install work plumb, true and square, neatly scribed to adjoining surfaces.
- .2 Make allowances around perimeter where fixed objects pass through or project into laminated plastic work or chemical resistant countertops to permit normal movement without restriction.
- .3 Use draw bolts and splines in countertop joints. Maximum spacing 450 mm oc, 75 mm from edge. Make flush hairline joints.
- .4 Provide cutouts for inserts, grilles, outlet boxes and other penetrations. Round internal corners, chamfer edges and seal exposed core.
 - .1 At junction of counter top and adjacent wall finish, apply small bead of sealant, also around perimeter of any sinks or other penetrations.

3.2 ADJUSTMENT AND CLEANING

- .1 Cover all finished surfaces with heavy kraft paper or put in cartons during shipment. Protect installed surfaces by approved means. Do not remove until immediately before final inspection.

3.3 SCHEDULING

- .1 Order countertop materials well in advance of scheduled installation to avoid delays in completion.

END OF SECTION