

MILLWORK

1. GENERAL

1.1 Work Included

- .1 Provide all labour, materials, methods, equipment, accessories to complete exterior, interior
woodwork, millwork, finish carpentry.
 - .1 Control Room Counters
 - .2 Control Room Uppers
 - .3 Rough hardware required for millwork screws, nails, bolts, connectors
 - .4 Finish hardware for cabinets and casework
 - .5 Plastic laminate, special surface coverings on millwork
 - .6 Temporary protection to millwork

1.2 Related Sections

- .1 Section 06100: Rough Carpentry

1.3 Shop Drawings

- .1 Submit Shop Drawings.
- .2 Indicate items, material quantities in related, dimensioned positions to full size, large scale
details, elevations minimum 1:50 scale.
- .3 Indicate finish, fixing methods, construction details where applicable. Indicate mechanical,
electrical items, where hardware unusual, miscellaneous items, etc.

1.4 Quality Assurance

- .1 Ensure lumber bears agency grading stamp certified by Canadian Lumber Standards
Accreditation Board (CLS).
- .2 Ensure Plywood bears grading mark in accordance with applicable CSA Standards.
- .3 Provide facilities to Contract Administrator to examine millwork undergoing fabrication,
assembly.

1.5 Regulatory Requirements

- .1 Construct millwork to Architectural Woodwork Manufacturers Association of Canada
(AWMAC) "Quality Standards for Architectural Woodwork", 1991.

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1.6 Material Delivery, Storage, Handling

- .1 Protect millwork, keep under cover during fabrication, in transit.
- .2 Do not deliver millwork long before required.
- .3 Enclose items undergoing lengthy transportation in sturdy wood crates, fully protect contents, prevent moisture infiltration.
- .4 Ensure crating in accordance with requirements of Carriers involved. Take adequate protection against damage in transit, on handling.
- .5 Clearly mark each grate, carton, package in exterior with identification of items, intended location in building.
- .6 Do not store millwork within structure during plastering, wet trades, etc. until work reasonably dry, ready for millwork.
- .7 Examine areas where millwork to be stored. Notify Contractor of conditions unsuitable for millwork.
- .8 Store millwork in dry warehouse conditions if millwork items manufactured before required on-site due to any cause.
- .9 Do not store in damp, humid conditions.
- .10 Bear costs for damage caused from such warehousing, storing.
- .11 Confer with Contractor to designate place in premises for reception of millwork.
- .12 Peruse means of access into building ensure large items will enter intended location without hindrance.
- .13 Sectionalize millwork for passage through doors, stairs, corridors, etc. Inform Contractor of difficult delivery, liaise for openings to be left in walls, etc.
- .14 Prefit items together in millwork factory.
- .15 Place millwork on wood skids provided by Section 06100, above floor in manner to prevent warpage, undue stress.
- .16 Examine materials delivered, ascertain no items damaged.

1.7 Warranty

- .1 Guarantee surfaces free from blisters, delaminations, warpage, other failures, defects.
- .2 Replace, re-install, refinish without cost, FOB jobsite.

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2. PRODUCTS

2.1 Lumber

- .1 Softwood lumber: to CSA 0141-1970 National Lumber Grades Authority requirements, selected for natural, paint finishes scheduled, indicated, Douglas Fir, Ponderosa Pine, Spruce species, AWMAC Custom Quality grade.
- .2 Hardwood lumber: to National Hardwood Lumber Association (NHLA) requirements, species indicated, scheduled for natural finish schedules, AWMAC Custom Quality grade.
- .3 Moisture content: kiln dried to average 6 to 8 percent interior Work, average 9 to 12 percent exterior Work.

2.2 Panel Materials

- .1 Douglas Fir plywood: to CSA 0121-M1978, Good 2 Sides (G2S) grade, waterproof glues, thickness indicated.
- .2 Western softwood plywood: to CSA 0151-M1978, Good 1 Side, sound 1 side (G1S, S1S), thickness indicated.
- .3 Mat formed wood particle board: to CAN3-0188. 1-M78, Type 2, Industrial Grade R, minimum 45 pound core density, density required for finish applied, uniform light colour, thickness indicated, required.
- .4 Melamine faced plastic laminate panel: to CAN3-A172-M79, 0.18 mm thick melamine resin impregnated decorative sheet fused to Industrial grade "R" mat formed particle board both sides (G2S), one side with backing sheet (G1S), 6 mm, 13 mm, 16 mm, 19 mm panel thick, sizes and thickness indicated, required, 0.51 mm thick factory applied edge banding where indicated, required, colour, finish selected by Contract Administrator, Arborite "Cladboard", Formica "MPC".
- .5 Edging tape: pre-glued polyester tape edge banding (site), shop applied with hot melt adhesive, colour, pattern to match face.
- .6 Plastic laminate: to CAN3-A172-M79, Post Forming (PF) Type 2 grade, 1 mm thick, solid, patterned, colour pattern, finishes indicated, selected by Contract Administrator, "Nevamar", "Arborite", "Formica", "Wilsonart" manufacturer selected by Contract Administrator.
- .7 Plastic laminate backing sheets: Backing grade, Regular GP-MK-R, 1.1 mm, 1 mm thick as required to match face thickness.

2.3 Accessories

- .1 Nails, spikes and staples: to CSA B111-1974, spiral thread.
 - .1 Galvanized: exterior Work, interior highly humid areas, treated lumber.

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- .2 Plain finish: interior Work
- .2 Draw bolts, splines, etc: fabricator standard
- .3 Rough hardware: bolts, nuts, washers, lags, pins, screws, draw bolts, hot dip galvanized
- .4 Glues, cements, adhesives: to CSA 0112 Series M77, first grade industrial quality, purpose made, water, heat proof for countertops

2.4 Cabinet Hardware

- .1 Provide all finish hardware, accessories, etc. required, indicated in details, etc. to Contact Administrator approval.
 - .1 Pulls: Ives 37PA28, rod
 - .2 Hinges: Blum 91A650 series, concealed with cover cap, spring hinge, self-closing
 - .3 Drawer slides: K&V No.1300 (drawer size to 600 x 450 x 150 mm)
 - .4 K&V No.1429 (drawer size over 600 x 450 x 150 mm)
 - .5 Shelf standards: K&V No. 255
 - .6 Shelf supports: K&V No. 256 x Quantity

3. EXECUTION

3.1 Preparation

- .1 Take Site measurements for millwork, other fabrication, establish sizes where dimension not available.
- .2 Verify figures indicated before laying out Work.
- .3 Make deliveries in sufficient time for installation by Section 06100 as scheduled.

3.2 Fabrication

- .1 Fabricate millwork, finish carpentry Work to AWMAC Standards, Custom Quality Grade.
- .2 Perform manufacture, fabrication using skilled, capable craftsmen, first class materials.
- .3 Fabricate millwork, finish carpentry true, square, aligned as detailed, required.
- .4 Construct members from pieces long as possible.
- .5 Make ample allowance for site cutting, fitting required.

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- .6 Join assemblies to hairline joints secured with concealed nails, screws, draw bolts, splines fully set, mortise and tenon joints, dadoes, dovetails, glue blocks, other acceptable methods. Allow for shrinkage.
- .7 Assemble at mill as practical, deliver ready for installation.
- .8 Ensure expose millwork, finish carpentry Work without defect, rough construction in exposed parts unless grading, species allows.
- .9 Apply compensating backing to rear face unsupported surfaces covered with glue-on facing materials, laminated plastic, etc.

3.3 Finishing

- .1 Arrange with Section 09900 as necessary, to prime, seal woodwork, millwork prior to delivery to Site.
- .2 Sand expose mouldings, surfaces, etc. by machine, hand to smooth, even surface, ready to receive finish.

END OF SECTION