

DIVISION 06
WOOD AND PLASTICS

SECTION 06100 ROUGH CARPENTRY

1.00 GENERAL

1.01 SECTION INCLUDES

- A. Rough wood framing.
- B. Wood grounds, blocking and nailers.
- C. Plywood.
- D. Wood treatment.

1.02 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete, for concrete formwork.
- B. Section 09265 - Gypsum Board Assemblies, for wood blocking in gypsum board assemblies for support of subsequent work.
- C. Section 16715 - Communications, for fire retardant plywood for telephone system equipment, data processing system.

1.03 SUBMITTALS: Follow Section 01330.

- A. Product Data: Wood treatment materials; provide technical data on wood preservative materials and application instructions.
- B. Certification documents for certified wood products.

1.04 DELIVERY, STORAGE, AND HANDLING: (Follow Division 1)..

1.05 QUALITY ASSURANCE

- A. Provide wood products with chain-of-custody documentation consistent with goals of the Forest Stewardship Council (US) which discourages use of trees from old-growth forest stock.

2.00 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber:

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1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: Southern Pine Inspection Bureau, Inc. (SPIB).
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: MC15 (15 percent moisture content).
- D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 1. Lumber: Philippine hardwood, Douglas Fir, Western Hemlock or Ponderosa Pine, S4S (finished 4 sides), No. 2 or Standard Grade.
 2. Boards: Standard or No. 3.

2.03 PLYWOOD

- A. Exposed to View: APA Grade A-C, exterior, sanded, 19 mm (3/4 inch) thick unless shown otherwise in manufacturer's site requirements.
- B. Concealed from View: APA Grade C-C, plugged, exterior, unsanded, 19 mm (3/4 inch) thick unless shown otherwise manufacturer's site requirements.

2.04 FASTENERS AND ANCHORS

- A. Fasteners, General Use: Size and type to suit condition.
- B. Anchors: Toggle bolt type for hollow masonry; expansion shield and lag bolt type for solid masonry or concrete; threaded nuts and bolts for anchorage to steel.
- C. Metal and Finishes:
 1. Hot dip galvanized steel per ASTM A153 where exposed to exterior atmosphere or high humidity environments.
 2. Where used with treated wood: Hot-dipped galvanized steel fasteners meeting ASTM A153 and connectors complying with ASTM 653, Class G185.
 3. Other Areas: Unfinished steel.

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2.05 WOOD PRESERVATIVE PRESSURE TREATMENT

- A. Preservative Treatment by Pressure Process: Plywood (AWPA C9). Lumber that is not in contact with the ground and is continuously protected from liquid water shall be treated according to AWPA C31 with inorganic boron (SBX). Lumber in contact with the ground and not continuously protected from water (AWPA C2).
1. Preservative Chemicals: Ammoniacal copper quat (ACQ).
 2. Do not use chemical formulations that require incising.
 3. For exposed items indicated to receive transparent finish, do not use chemical formulations that contain colorants or that bleed through or otherwise adversely affect finishes.
 4. Kiln-dry material after treatment to levels required for untreated material. Do not use material that is warped or does not comply with requirements for untreated material.
 5. Mark each treated item with the Quality Mark Requirements of an inspection agency approved by the American Lumber Standards' Committee Board of Review.
- B. Pressure treat the following and other work shown:
1. Wood cants, nailers, equipment support bases, blocking and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 2. Wood sills, sleepers, blocking, furring, and similar concealed members in contact with concrete and masonry.
 3. Wood members in contact with ground or fresh water or less than 18 inches above grade..
 4. Wood members in contact with salt water.

- C. Minimum preservative retention:

APPLICATION	RETENTION (PCF)	AWPB MARK
Above Ground	0.25	Above Ground Use
Ground or Fresh Water Contact	0.4	Ground Contact Use
Salt Water Immersion	2.5	MLP Marine Use

2.06 WOOD PRESERVATIVE - FIELD APPLIED

- A. AWPA Standard M4.

2.07 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.

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1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
 2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWP standards.
- B. Fire Retardant Pressure Treatment:
1. Interior Type A: AWP Use Category UCFA, Commodity Specification H (Treatment C20 for lumber and C27 for plywood), low temperature (low hygroscopic) type, chemically treated and pressure impregnated; capable of providing a maximum flame spread rating of 25 when tested in accordance with ASTM E 84, with no evidence of significant combustion when test is extended for an additional 20 minutes.
 - a. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
 - b. Do not use treated wood in applications exposed to weather or where the wood may become wet.
 - c. Treat rough carpentry items as indicated.

3.00 EXECUTION

3.01 GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants
- D. All pressure-treated wood in contact with prime-painted and galvanized metal, including metal deck, shall be separated by a layer of self-adhering polymer-modified bitumen membrane sheet.

3.02 FRAMING

- A. Erect wood framing members plumb, level and true.
- B. Place horizontal members laid flat, crown side-up.
- C. Use full length framing members without splices.

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- D. Construct and brace framing to provide maximum stability and minimize effects of shrinkage. Layout, fit and erect blocking, furring and grounds. Securely bolt or anchor rough carpentry to structure.

3.03 WOOD GROUNDS, SUPPORTS, NAILERS, AND BLOCKING

- A. Install wood grounds, framing, nailers, and blocking members where shown and where required to support finishes, fixtures, specialty items, trim, and screeds. Form to shapes shown or required for true line and level of work to be attached. Coordinate location with other work involved.
 - 1. Roof blocking shall be comprised of the sufficient number of units to accommodate the height of the adjacent roof materials and shall not be determined by the number of graphically-represented units which may be indicated on the Architect's Drawings.
- B. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- C. In walls, attach to substrate as required providing blocking attached to studs as backing and support applied loading for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated. Build work into masonry, and where possible, anchor to formwork before concrete placement.
 - 1. Specifically, provide the following non-structural framing and blocking:
 - a. Cabinets and shelf supports.
 - b. Wall brackets.
 - c. Handrails.
 - d. Grab bars.
 - e. Towel and bath accessories.
 - f. Wall-mounted door stops.
 - g. Joints of rigid wall coverings that occur between studs.
 - h. Any other locations as indicated on drawings.
- D. Nailers and Blocking for Roofing Accessories: Follow FM Loss Prevention Data Bulletin 1-49 for securement of nailers and blocking used to attach roof edging and copings.

3.04 TREATED WOOD AND PLYWOOD

- A. Do not rip or mill fire retardant treated lumber. Only end cuts, drilling holes, and joining cuts are permitted.
- B. Treat field cuts made to preservative treated members compatible with factory applied treatment complying with manufacturer's instructions and in accordance with AWP Standard M4.

END OF SECTION

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SECTION 06200 FINISH CARPENTRY

1.00 GENERAL

1.01 SCOPE

- A. Furnish all materials, labor, equipment, plant, tools, required to complete and field install
- Wood framing, trims and mouldings
 - Wood and plastic laminate panel boards
 - Insulated acoustical panels
- and related finish carpentry work as indicated on the drawings and/or specified herein.
- B. Coordinate work with all other related trades.

1.02 HANDLING, STORAGE AND PROTECTION

- A. Millwork
1. Protect millwork against dampness during and after delivery.
 2. Do not bring interior finish, including doors, inside building until plaster is thoroughly dry.
 3. Protect all finished woodwork from injury after it has been set in place until the completion and final acceptance of the work.
- B. Medium Density Fiberboard, Gypsum Board and Fiber Cement Board.
Stack boards flat on a smooth level surface. Timber blocks may be used as support if it ensures optimum performance. Store sheets under cover and keep dry prior to fixing. If sheets should become wet, allow to dry thoroughly before fixing is commenced.

2.00 PRODUCTS

- A. Refer to Section 01020 Summary of Materials and Finishes.

2.01 LUMBER: Moisture content; between 5 and 10 percent.

- A. Softwood: Any commercial softwood species.
- B. Hardwood Lumber: Birch or Poplar.

2.02 SHEET MATERIALS

- A. Softwood Plywood: The purpose for which plywood is used shall determine types, grades, waterproof or water-resistive construction, and thickness according to "Guide to Plywood Grades under Product Standard PS 1, except as shown otherwise. Exposed Faces: Veneer Grade Pine for interior plywood and Medium Density Overlay for exterior plywood.

- B. Hardwood Plywood: Philippine hardwood, varying ply thickness as detailed. PS 51; particleboard core; type of glue recommended for application.
- C. Particleboard: Medium density, ANSI A208.1 Grade 1-M-2, density: 45 pcf; moisture resistant and fire retardant treated.
- D. Hardboard: ANSI A135.4; pressed wood fiber with resin binder; tempered grade.

2.03 PLASTIC LAMINATE MATERIALS

- A. Plastic Laminate: NEMA LD 3, in colors and textures as shown. Types as follows:
 - 1. GP 50: Horizontal grade. Use this grade for all exposed horizontal and vertical applications. The following may also be used for specific applications where GP 50 is not suitable.
 - 2. GP 28: Vertical grade.
 - 3. PF 42: Postforming grade.
 - 4. CL 20: Cabinet liner.
 - 5. BK 20: Backing sheet.
- B. Adhesives: Mill option.

2.04 ACCESSORIES

- A. Fasteners, Bolts, Nuts, Washers, Lags, Pins and Screws: Of size and type to suit application, except where specific types are shown.
- B. Closet Hardware: Chrome plated steel with matching end and intermediate supports.

2.05 SHOP FABRICATION

- A. Prepare woodwork to receive items specified in other Sections. Use templates.
- B. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 610 mm (2 feet) from sink cut-outs.
- C. Apply laminate backing sheet to reverse face of plastic laminate finished surfaces.
- D. Shelving: 3/4 inch thick particleboard with 3/8 x 3/4 inch hardwood edging; one piece for full length.
- E. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

3.00 EXECUTION

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3.01 WORKMANSHIP

- A. Make all wood finish and millwork true to details, clean and sharply defined.
- B. Set panels to allow for free movement in case of swelling or shrinkage.
- C. Conceal means of fastening various parts together.
- D. Install work plumb, level, securely in place, and with tightly fitted joints.
- E. For wall mounted components, use concealed attachments. Countersink anchorage devices, and conceal with solid plugs. Finish flush with adjacent surfaces.
- F. Scribe work butting other surfaces; maximum gap 1/32 inch. Do not use additional overlay trim.
- G. Use blind nailing where practicable. Where face nailing is required, set and fill with putty. Finish work smooth.
- H. Cope trim and moldings at returns and interior angles, and miter at external corners. Shoulder intersections of flat work to ease any inherent change of plane.
- I. Stagger, conceal, or space joints in inconspicuous locations.
- J. Minimize joints by using maximum length lumber available. Stagger joints in adjacent and related members.

3.02 FINISH

- A. Mill, fabricate and erect interior finish as indicated on the drawings. Machine sand at the mill and manual smooth at the job.
- B. Separate with 6 mm (1/4") stone-cut joints all interior trim set against with fine finishing nails, screws or glue where required.
- C. Make mill mouldings perfectly smooth on exposed surfaces and true to profile.
- D. Make joints tight and in a manner to conceal shrinkage. Secure trims with fine finishing nails, screws or glue where required.
- E. Set nails for putty stopping.
- F. Make window and door trim simple length.
- G. Miter mouldings at corner, cope and angles.

3.03 WOOD SHELVING

- A. Each shelf shall be supported on a continuous wood cleat at walls.
- B. Secure cleats to masonry walls by expansion bolt or approved fastening device.

3.05 ASSEMBLY MATERIALS

- A. WELDWOOD or approved water-resistant wood glue
- B. SELLEY LIQUID NAILS or approved equal.
- C. Nails, screws and bolts of appropriate type, shape and size for all types of joints.

3.07 HARDWARE

- A. Accurately fit and install all required finish hardware items.

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- B. If surface-applied hardware is fitted and applied before painting, remove all such items, except butts and reinstall after painting is completed.
- C. Finish Hardware: See Summary of Materials and Finishes.

END OF SECTION 06200

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SECTION 06400

INTERIOR ARCHITECTURAL WOODWORK

1.00 GENERAL

1.01 SCOPE

- A. Custom fabricated woodwork to receive transparent finish, including but not limited to: wood veneer paneling; casework; built-in furnishings; shelves; mail slots; interior door and window frames; standing and running trim markerboards and tackboards, and stair handrails.

1.02 SUBMITTALS: Follow Section 01330.

- A. Shop Drawings: Show materials, wood species, component profiles, fastening methods, jointing details, finishes and accessories. Locate built-in equipment, electrical and mechanical devices.
 - 1. For veneer work, show surface graining direction.
 - 2. For wall paneling, show plan of panel number sequence.
- B. Product Data: Describe cabinet hardware and fire retardant treatment materials.
- C. Samples: 300 mm (12 inch) square samples of wood veneer of each species, cut and finish shown or specified.

1.03 QUALITY ASSURANCE

- A. Follow AWI Custom quality standards, in addition to specified requirements.
 - 1. Standing and Running Trim: AWI Section 300.
 - 2. Casework and Countertops: AWI Section 400.
 - 3. Paneling: AWI Sections 200 and 500A.
 - 4. Closet and Storage Shelving: AWI Section 600.
 - 5. Handrails: AWI Section 800.
 - 6. Finishing: AWI Section 1500.

1.04 QUALIFICATIONS

- A. Fabricator: Company specializing in work of this Section with minimum five years experience.

1.05 MOCK-UP: Follow Section 01410.

- A. Provide a full height mock-up of paneling and associated trim, at least 6 feet wide.
- B. Approved mock-up may remain as part of the work.

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1.06 DELIVERY, STORAGE AND HANDLING: Follow Section 01600.

- A. Store materials in ventilated, interior locations under constant minimum temperature of 60 degrees F, and relative humidity between 25 and 55 percent. Cover woodwork immediately upon arrival at job site.
- B. Shop assemble items too large for transportation as one unit; disassemble, and ship in sections for re-assembly at site.

2.00 PRODUCTS

2.01 LUMBER

- A. AWI Custom grade suitable for transparent finish. Moisture content; between 5 and 10 percent.
- B. Softwood: Species: Redwood plain sawn.
- C. Hardwood: Species, color and grain to match hardwood face veneer.

2.02 SHEET MATERIALS

- A. Hardwood Faced Panels:
 - 1. Hardwood Face Veneer: Plain sliced Philippines hardwood selected for uniform color and grain quality capable of transparent finish. Grain match adjacent sheets to book matching.
- B. Particleboard: Medium density, ANSI A208.1 Grade 1-M-2, density: 45 pcf ; moisture resistant ; fire retardant treated.
- C. Hardboard: ANSI A135.4; pressed wood fiber with resin binder; tempered grade.
- D. Pegboard: Pressed wood fiber with resin binder; tempered grade; 3.2 mm (1/8 inch) thick with holes 25 mm (1 inch) OC.
- E. Low-emitting Materials: Provide materials made with adhesives and composite wood products that do not contain urea-formaldehyde resins.
- F. Panel Products: Any of the following:
 - 1. Particleboard made from wood particles[, with binder containing no urea-formaldehyde resin], complying with ANSI A208.1, Grade M-2.
 - 2. Particleboard made from straw, complying with ANSI A208.1, Grade M-2.
 - 3. Medium-density fiberboard made from wood fiber[, with binder containing no urea-formaldehyde resin], complying with ANSI A208.2, Grade MD.
 - 4. Medium-density fiberboard made from agricultural waste fiber, complying with ANSI A208.2, Grade MD.
 - 5. Hardboard, complying with AHA A135.4.

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6. Veneer core plywood[, made with adhesive containing no urea-formaldehyde resin].

2.03 ACCESSORIES

- A. Fasteners, Bolts, Nuts, Washers, Lags, Pins and Screws: Size and type to suit application, except where specific types are shown.

2.04 FIRE RETARDANT TREATMENT

- A. AWWPA Interior Type A, Standard C-20 for lumber and C-27 for plywood. Material shall provide a maximum flame spread and smoke development classification of 25 or less, ASTM E84.
- B. Use treated lumber and plywood in Server Rooms, LAN/IT closets, mechanical equipment rooms, storage rooms

2.05 CASEWORK HARDWARE AND ACCESSORIES

- A. Manufacturers: The manufacturers and products named are acceptable; substitutions of other unnamed manufacturers are permitted subject to approval by the Owner.
- B. Shelf Standards and Rests: KV No. 255 BRN-Brown steel recessed standards and No. 256 zinc plated clips; four supports per shelf.
- C. Shelf Brackets: See Division 12 Laboratory Casework. Shelf bracket wall system products shall be capable of providing shelves that can support 50 kg / 300 mm foot width of sheving.
- D. Support Brackets: Hafele "Hebgo" Series, table bracket primed for field painting.
- E. Drawer and Door Pulls: Stanley No. 4484, 4 inch wire pulls, satin aluminum US28.
- F. Sliding Door Pulls: Ives No. 226, circular recessed pull, US26D.
- G. Cabinet Locks: Schlage CL Series; provide with bar or mortise strike as applicable.
- H. Catches: Stanley No. SP46, aluminum.
- I. Drawer Slides: Full extension telescoping action on precision steel ball bearings; BHMA 100 pound class load rating; Knape & Vogt Manufacturing Company, Medium duty, Model No. 8400.
- J. Hinges: Grass America No. 3606 Snap-On, 95 degree opening, nickel plated.
- K. Sliding Door Hardware: frameless, barn-door type, top mounted, heavy duty PVC casters.

2.06 SHOP FABRICATION

- A. Before fabrication, A/E and Owner's representative will review proposed flitches of veneer in supplier's or fabricator's shop. Review will be for uniformity of grain and color throughout entire

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surface, and for acceptability of adjacent panels. Exact layout may be revised as a result of this review.

- B. Prepare work to receive items specified in other Sections. Use templates.
- C. Shelving: 19 mm (3/4 inch thick) particleboard with 10 x 19 mm (3/8 x 3/4 inch) thick hardwood edging to match veneer.
- D. Shop prepare and identify wall paneling sheets for grain matching during site erection.
- E. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

2.07 FACTORY FINISHING

- A. Finish in accordance with AWI System Catalyzed Polyurethane; Custom grade. Apply wood filler if required. Sand surfaces smooth and set exposed nails and screws. Apply wood filler in exposed nail and screw indentations. On items to receive transparent finishes, use wood filler to match surrounding surfaces and of types recommended for applied finishes. Finish to color and sheen selected, or to match A/E's sample.
- B. Seal, stain and varnish semi-concealed surfaces. Seal concealed surfaces.

3.00 EXECUTION

3.01 INSTALLATION

- A. Install work plumb, level, securely in place and with tightly fitted joints.
- B. Do not install woodwork in areas where painting, sanding, grinding or wet work is insufficiently complete for proper protection of woodwork.
- C. For wall mounted components, use concealed attachments. Countersink anchorage devices, and conceal with solid plugs of species to match adjoining wood. Finish flush with adjacent surfaces.
- D. Scribe work butting other surfaces; maximum gap: 0.8 mm (1/32 inch). Do not use additional overlay trim.
- E. Use blind nailing where practicable. Where face nailing is required, set and fill with putty. Finish work smooth.
- F. Cope trim and moldings at returns and interior angles, and miter at external corners. Shoulder intersections of flat work to ease any inherent change of plane.

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- G. Minimize joints by using maximum length lumber available. Stagger joints in adjacent and related members.
- H. Secure wall paneling to furring strips with concealed hanger bars which allow expansion and contraction. Do not use nails or screws to secure panels.
- I. Panels shall require no site cutting which will alter center matched or balanced faces, or sequencing of panels, doors, fixtures, or other features along that run.
- J. Apply plugs or putty to match adjoining wood in exposed fastener locations.
- K. Adjust doors, hardware, and other moving or operating parts to function smoothly and correctly.
- L. Touch up damages, using material furnished by fabricator.

END OF SECTION 06402

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SECTION 06416 PLASTIC LAMINATE WOOD CABINETS

1.00 GENERAL

1.01 SECTION INCLUDES

- A. Plastic laminate cabinets.
- B. Plastic laminate countertops.

1.02 SUBMITTALS: Follow Section 01 33 00.

- A. Shop Drawings: Show materials, dimensions, hardware, jointing details, [countertop joint locations,] plastic laminate grades, colors, finishes and accessories. Locate built-in equipment, electrical and mechanical devices. Indicate AWI Quality Standards.
- B. Product Data: Cabinet hardware.
- C. Samples:
 - 1. Manufacturer's full range of color and texture samples of plastic laminate for selection.
 - 2. Hinges and exposed hardware items, in specified finish.

1.03 QUALITY ASSURANCE: Comply with:

- A. AWI or WIC Custom Quality Standards, Section 400.
- B. Model woodworking standards of the Philippines as approved by the Owner.

1.04 DELIVERY, STORAGE AND HANDLING: Follow Section 01600.

- A. Store materials in ventilated space, under constant minimum temperature of 60 degrees F, and relative humidity between 25 and 55 percent. Protect from damage.

2.00 PRODUCTS

2.01 SCHEDULE OF MATERIALS AND FINISHES

- A. Casework Shell, Counters, Shelves, Drawers and Doors: Particleboard.
- B. Stiles and Rails: Lumber.

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- C. Exterior Finish: Chemically resistant, plastic laminate.
- D. Interior Finish: Phenolic resin shelving, melamine or plastic laminate on solid core panels..

2.02 LUMBER

- A. Moisture content; between 5 and 10 percent. Any commercial softwood species.

2.03 SHEET MATERIALS

- A. Particleboard: Medium density, ANSI A208.1 Grade 1-M-2, density: 45 pcf; moisture resistant; fire retardant treated.
- B. Low-emitting Materials: Provide materials made with adhesives and composite wood products that do not contain urea-formaldehyde resins.
- C. Panel Products: Any of the following:
 - 1. Particleboard made from wood particles, with binder containing no urea-formaldehyde resin, complying with ANSI A208.1, Grade M-2.
 - 2. Particleboard made from wheat straw, complying with ANSI A208.1, Grade M-2.
 - 3. Medium-density fiberboard made from wood fiber, with binder containing no urea-formaldehyde resin, complying with ANSI A208.2, Grade MD.
 - 4. Medium-density fiberboard made from agricultural waste fiber, complying with ANSI A208.2, Grade MD.
 - 5. Hardboard, complying with AHA A135.4.
 - 6. Veneer core plywood, made with adhesive containing no urea-formaldehyde resin.

2.04 PLASTIC LAMINATE MATERIALS

- A. Plastic Laminate: NEMA LD 3, in colors and textures as shown. Types as follows:
 - 1. GP 50: Horizontal grade. Use this grade for all exposed horizontal and vertical applications. The following may also be used for specific applications where GP 50 is not suitable.
 - 2. GP 28: Vertical grade.
 - 3. PF 42: Postforming grade.
 - 4. CL 20: Cabinet liner.
 - 5. BK 20: Backing sheet.
- B. Adhesives: Mill option.

2.05 FIRE RETARDANT TREATMENT

- A. AWWPA Interior Type A, Standard C-20 for lumber and C-27 for plywood. Material shall provide a maximum flame spread and smoke development classification of 25 or less, ASTM E84.

- B. Use treated lumber and particleboard in laboratories, laboratory support and building operations rooms.

2.06 CASEWORK HARDWARE AND ACCESSORIES

- A. Manufacturers: Products listed are approved. Substitutions are permitted subject to approval by Owner through Owner's representative.
- B. Fasteners: Bolts, Nuts, Washers, Lags, Pins and Screws: Size and type to suit application, except where specific types are shown.
- C. Plastic Edge Trim: Extruded convexshaped; smooth finish; self-locking serrated tongue; of width to match component thickness; color to be chosen by A/E.
- D. Shelf Standards and Rests: Stanley No. 1805 aluminum mortise. Four supports per shelf.
- E. Drawer and Door Pulls: Stanley No. 4484, 4 inch wire pulls, satin aluminum US28.
- F. Catches: Stanley No. SP46, with impregnated rubber magnet, satin aluminum US28.
- G. Drawer Slides: Full extension telescoping action on precision steel ball bearings; BHMA 100 pound class load rating; Knappe & Vogt Manufacturing Company, Medium duty, Model No. 8400.
- H. Hinges: Grass American No. 3613VS or Blum No. 75M3580, concealed adjustable type for a 95 degree opening, nickel plated.
- I. Wire Access Grommets: Doug Mockett & Company, Inc., Style TG, 2 3/8 inches wide, with 2 inch hole, round black plastic liner and cap.

2.07 FABRICATION

- A. Construction: Flush overlay.
- B. Prepare work to receive items specified in other Sections. Use templates.
- C. When necessary to cut and fit on site, provide materials with ample allowance for cutting.
- D. Apply plastic laminate finish in maximum size sheets. Fit corners and joints hairline tight. Slightly bevel arises.
- E. Apply backing sheet to reverse side of finished surfaces.
- F. Plastic Laminate Countertops:
 - 1. Bond plastic laminate to 19 mm (3/4 inch) thick solid core material. Build up perimeter of countertops to 32 mm (1 1/4 inch) thick with hardwood strips. Butt curbs.

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2. Locate counter joints at least 2 feet from sink cut-outs.
3. Cap exposed edges with [material of same finish and pattern] [plastic trim].
4. Set back and end splashes in waterproof sealant, and mechanically fasten to countertops with steel brackets at 406 mm (16 inches) OC. Miter corners.
5. Seal and waterproof cutouts, back edge of countertops and other surfaces not receiving laminate finish.

3.00 EXECUTION

3.01 INSTALLATION

- A. Install work rigid, plumb, level and true.
- B. For wall mounted components, use concealed attachments designed for this purpose.
- C. Scribe work where butting other surfaces; maximum gap 0.80 mm (1/32 inch). Do not use additional overlay trim.
- D. Use concealed joint fasteners to align and secure adjoining cabinet units and countertops.
- E. Secure base cabinets to floor.
- F. Adjust doors, drawers, hardware and other moving parts to function smoothly and correctly.

END OF SECTION 06416

Read and accepted as part of the Contract:

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