

## **PART 1 - GENERAL**

### **1.01 RELATED DOCUMENTS**

- A. The Contractor, Subcontractors, and/or suppliers providing goods or services referenced in or related to this Section shall also be bound by the Documents identified in Division 01 Section "Summary", Paragraph 1.01A, entitled "Related Documents."

### **1.02 SUMMARY**

- A. This Section includes the following:
  - 1. Interior standing and running wood trim.
  - 2. Plastic-laminate-clad cabinets.
  - 3. Cabinet hardware and accessories.
  - 4. Closet shelving.
  - 5. Wall shelving.
- B. Section also includes:
  - 1. Wood furring, blocking, shims, and hanging strips for installing interior architectural woodwork, unless concealed within other construction before cabinet installation.
- C. Related Sections include the following:
  - 1. Division 01 Section "Sustainable Design Requirements."
  - 2. Division 06 Section "Miscellaneous Rough Carpentry" for wood furring, blocking, shims, fire retardant treated plywood, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.
  - 3. Division 06 Section "Wood-Veneer-Faced Architectural Cabinets."
  - 4. Division 09 Section "Painting" for field finishing interior standing and running wood trim.
  - 5. Division 11 Section "Residential Appliances" for appliances indicated to be built-in to casework.
  - 6. Division 12 Section "Simulated Stone" for solid-surface countertops installed with custom interior architectural woodwork.

### **1.03 PREINSTALLATION MEETINGS**

- A. Preinstallation Conference: Conduct conference at Project site.

### **1.04 DEFINITIONS**

- A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

- B. Exposed Exterior Surfaces of Cabinets: All exterior surfaces exposed to view as follows:
1. All surfaces visible when door and drawers are closed, including knee spaces.
  2. Underside of cabinet bottoms over 42 inches above finish floor, including cabinet bottoms behind light valances and the bottom edge of light valances.
  3. Cabinet tops under 80 inches above finish floor, or if over 80 inches and visible from an upper level.
  4. Visible front edges of stretchers, ends, divisions, tops, bottoms, shelves and nailers.
  5. Sloping tops of cabinets that are visible.
- C. Exposed Interior Surfaces of Cabinets: All interior surfaces exposed to view in open casework or behind glass doors as follows:
1. Shelves, including edgebanding.
  2. Divisions and partitions.
  3. Interior face of ends (sides), backs, and bottoms (including pull-outs).
  4. Interior surfaces of cabinet top members 36 inches or more above finished floor.
  5. Interior face of door and applied drawer fronts.
- D. Semi-exposed Surfaces of Cabinets: Interior surfaces exposed to view only when doors or drawers are opened as follows:
1. Shelves, including edgebanding.
  2. Divisions and partitions.
  3. Interior face of ends (sides), backs, and bottoms (including pull-outs).
  4. Interior surfaces of cabinet top members 36 inches or more above finished floor.
  5. Drawer sides, sub-fronts, backs, and bottoms.
  6. Underside of cabinet bottoms between 24 and 42 inches above finished floor.
  7. Security and dust panels or drawer stretchers.
- E. Concealed Surfaces of Cabinets: Exterior or interior surfaces that are covered or not normally exposed to view, as follows:
1. Toe space, unless otherwise specified.
  2. Sleepers, stretchers, and solid sub-tops.
  3. Underside of cabinet bottoms less than 24 inches above finished floor.
  4. Flat tops of cabinets 80 inches or more above finished floor, except if visible from an upper level.
  5. The three non-visible sides of adjustable shelves.
  6. The underside of countertops, knee spaces, and drawer aprons.
  7. The faces of cabinet ends of adjoining units that butt together.

## 1.05 SUBMITTALS

- A. Product Data: For each type of product, including panel products, cabinet hardware and accessories and finishing materials and processes.
- B. CTHPB Documentation Submittals: Comply with Division 01 Section "Sustainable Design Requirements" and provide the following in addition to other action submittals:
1. Product Data for Credit 5d: For adhesives and sealants, documentation including printed statement of VOC content.

2. Product Data for Credit d8: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
  3. Product Certificates for Credit d10: For products and materials required to comply with requirements for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
  4. ~~Certificates for Credit d13: Chain of custody certificates indicating that products specified to be made from certified wood comply with forest certification requirements. Include documentation that manufacturer is certified for chain of custody by an FSC accredited certification body. Include statement indicating cost for each certified wood product.~~
  5. Laboratory Test Reports for Credit b4: For composite wood and agrifiber products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
1. Indicate AWI/QCP Number assigned to this Project on all pages of shop drawings.
  2. Show details full size.
  3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
  4. Show locations and sizes of cutouts and holes for plumbing fixtures and faucets installed in architectural woodwork.
- D. Samples for Initial Selection:
1. Plastic laminates.
  2. PVC edge material.
- E. Samples for Verification:
1. Lumber for transparent finish, not less than 5 inches wide by 24 inches long, for each species and cut, finished on 1 side and 1 edge.
  2. Veneer-faced panel products for transparent finish, 8 by 10 inches, for each species and cut. Include at least one face-veneer seam and finish as specified.
  3. Plastic laminates, 8 by 10 inches, for each type, color, pattern, and surface finish.
  4. Corner pieces as follows:
    - a. Cabinet-front frame joints between stiles and rails, as well as exposed end pieces, 18 inches high by 18 inches wide by 6 inches deep.
  5. Exposed cabinet hardware and accessories, one unit for each type.
  6. Full size cabinet samples, including all mounting hardware and fasteners.
    - a. One full size base cabinet with drawer and all hardware.
    - b. One full size upper cabinet.
- F. Product Certificates: For each type of product, signed by product manufacturer.

- G. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.
- H. Qualification Data: For Fabricator.

**1.06 QUALITY ASSURANCE**

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Installer Qualifications: Fabricator of products, or installer approved by fabricator and a certified participant in AWI's Quality Certification Program.
- C. Accessibility: Comply with applicable provisions in the 2010 ADA Standards and ICC/ANSI A117.1.
- D. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.
  - 1. Contractor shall register the work of this Section with the AWI Quality Certification Program.
  - 2. Provide AWI Quality Certification labels and certificates indicating that interior architectural woodwork, including installation, complies with requirements of grades specified.
  - 3. The Contract Documents contain selections chosen from options in the quality standard and additional requirements beyond those of the quality standard. Comply with those selections and requirements in addition to the quality standard.
- E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Build mockups of typical plastic-laminate-clad cabinets, including the following:
    - a. A minimum of two base cabinets, with countertop.
    - b. One upper cabinet.
    - c. One tall cabinet.
  - 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- ~~F. Forest Certification: Provide interior architectural woodwork produced from wood obtained from forests certified by an FSC accredited certification body to comply with FSC STD 01-001, "FSC Principles and Criteria for Forest Stewardship."~~

### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

### 1.08 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F and relative humidity between 25 and 55 percent during the remainder of the construction period.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.

### 1.09 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. Regional Materials: Provide wood products manufactured within 500 miles of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles of Project site.
- ~~C. Certified Wood: Interior architectural woodwork shall be produced from wood obtained from forests certified by an FSC accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."~~
- D. Wood Trim for Opaque Finish (Painted Finish): **Soft White Maple, plain sliced**
- E. Wood Trim for Transparent Finish: **Soft White maple, plain sliced.**

- F. Wood Products: Comply with the following:
1. Recycled Content of Medium-Density Fiberboard and Particleboard: Provide products with an average recycled content so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 10 percent.
  2. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
  3. Particleboard: ANSI A208.1, Grade M-2.
  4. Softwood Plywood: DOC PS 1.
  5. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1.
    - a. Baltic Birch Plywood: High-quality, one-piece birch laminations with Grade BB/BB faces.
- G. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
1. Provide PVC or polyester edge banding complying with LMA EDG-1 on components with exposed or semiexposed edges.
- H. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.
1. Basis of Design Products: Subject to compliance with requirements, provide products indicated on the Materials List or comparable products as follows:
    - a. **PL-1:**
      - 1) Arborite; Architectural Maple.
      - 2) Formica; Sand Maple.
    - b. **PL-2:**
      - 1) Arborite; Ultra White.
      - 2) Formica; White.

## 2.02 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets.
- B. Butt Hinges: 2-3/4-inch, 5-knuckle steel hinges made from 0.095-inch-thick metal, and as follows:
1. Semiconcealed Hinges for Overlay Doors: BHMA A156.9, B01521.
- C. Door Restraint: Steel cabinet door restraint with nickel-plated finish, with mounting plates for screw fixing at each end.
1. Provide restraint at cabinet doors where cabinet is located adjacent to a wall or where an adjacent counter extends beyond the face of the cabinet.

- D. Bumper Cushions: Round polyurethane clear self-adhering door bumper cushions, 5/16-inch diameter, 1/16-inch thick.
  - 1. Provide door cushions on all cabinet doors.
- E. Wire Pulls: Back mounted, solid metal, 4 inches long, 5/16 inch in diameter.
- F. Shelf Rests: BHMA A156.9, B04013; plastic, two-pin type with shelf hold-down clip.
- G. Catches: Magnetic catches, BHMA A156.9, B03141.
- H. Drawer Slides: BHMA A156.9, B05091.
  - 1. Heavy Duty (Grade 1HD-100 and Grade 1HD-200): Side mounted; full-extension type; zinc-plated steel ball-bearing slides.
  - 2. Box Drawer Slides: Grade 1HD-100; for drawers not more than 6 inches high and 24 inches wide.
  - 3. File Drawer Slides: Grade 1HD-200; for drawers more than 6 inches high or 24 inches wide.
- I. Locks: Furnish cam type locks on all cabinet doors and drawers, keyed alike per room, with one master key.
  - 1. Basis of Design Product: Subject to compliance with requirements, provide the following, or equal:
    - a. **National Cabinet Locks; Cam Lock.**
  - 2. Door Locks: BHMA A156.11, E07121.
  - 3. Drawer Locks: BHMA A156.11, E07041.
- J. Grommets for Cable Passage through Countertops: 3-1/2-inch OD, aluminum grommet and matching cap with slot for wire passage, and radiused brush.
  - 1. Basis of Design Product: Subject to compliance with requirements, provide **Doug Mockett & Company, Inc.; ABG3-94** or comparable product by one of the following:
    - a. Richelieu Hardware.
    - b. Rockler Woodworking and Hardware.
- K. Wardrobe Hooks: Wall mounted, stainless steel with satin finish, with matching cover plate; 2 inch base diameter with 13/32-inch hook diameter, 1-19/32 inch projection.
  - 1. Basis of Design Product: Subject to compliance with requirements, provide **Doug Mockett & Company, Inc.; HK1-SSS** or comparable product by one of the following:
    - a. Hafele.
    - b. Richelieu Hardware.

- L. Label Holders: Steel, nickel plated finish, overall size 2-13/16-inches by 9/16-inches.
1. Basis of Design Product: Subject to compliance with requirements, provide the following, or equal:
    - a. **Hafele; Label Frame 168.00.713.**
- M. Counter Support Brackets: Extruded aluminum, "T"-shaped bracket, welded along 45 degree mitered sides and back, with 5/16-inch holes to accept 1/4-inch screws.
1. Basis of Design Product: Subject to compliance with requirements, provide **Rakks; EH Counter Bracket** or comparable product by one of the following:
    - a. Federal Brace.
    - b. Knape & Vogt.
  2. Load Capacity: Minimum 300 lbs.
  3. Size:
    - a. Model EH-1818-FM for up to 24-inch deep counters: 18" vertical leg, 20" horizontal leg, 2 inches deep.
      - 1) Provide face plate EHFP-0202.
  4. Finish: Electrostatically applied powder coat paint in color indicated, or as selected by Architect from manufacturer's full range.
- N. Adjustable Shelf Standards and Supports: Extruded aluminum, wall mounted standards with rectangular bar design shelf supports.
1. Bracket: Subject to compliance with requirements, provide **Rakks; Rakks Style Bracket** or comparable product by one the following, or equal:
    - a. Federal Brace.
    - b. Knape & Vogt.
  2. Standards: Extruded aluminum, "C" shaped standard, for surface mounted installation.
  3. Load Capacity: 75 lbs. per bracket.
  4. Sizes: As indicated.
  5. Finish: Clear anodized.
- O. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
1. Satin Chromium Plated: BHMA 626 for brass or bronze base; BHMA 652 for steel base.
- P. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.



## 2.03 ACCESSORIES

- A. Aluminum Trim: Provide extruded accessories of profiles and dimensions indicated.
  - 1. Basis of Design Products: Subject to compliance with requirements, provide products by **Fry Reglet Corporation** or comparable products by one of the following:
    - a. Gordon, Inc.
    - b. Stockton Products.
  - 2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221, Alloy 6063-T5.
    - a. Finish: Powder coat in color as selected by Architect from manufacturer's full range.
  - 3. Shapes: Provide shapes as follows in locations as indicated on Drawings.
    - a. H10 Base: Nominal 3/7 inch depth.
    - b. H6 Slek Horizontal: Nominal 9/16 inch depth.

## 2.04 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.
- C. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
- D. Adhesive for Bonding Plastic Laminate: Contact cement.
- E. Adhesives: Use adhesives that meet the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- F. Wood Putty: Pigmented, oil-based putty formulated specifically for use on wood.
  - 1. Product: Subject to compliance with requirements, provide the following, or equal:
    - a. Color Putty Company, Inc.; Color Putty.
  - 2. Colors: Blend different colors of putty as required to match wood color(s).
- G. VOC Limits for Installation Adhesives and Glues: Use installation adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  - 1. Wood Glues: 30 g/L.
  - 2. Multipurpose Construction Adhesives: 70 g/L.

3. Contact Adhesive: 250 g/L.

## 2.05 FABRICATION, GENERAL

- A. Interior Woodwork Grade: Unless otherwise indicated, provide Custom-grade interior woodwork complying with referenced quality standard.
- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
- C. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
  1. Corners of Cabinets and Edges of Solid-Wood (Lumber) Members 3/4 Inch Thick or Less: 1/16 inch.
- D. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
  1. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- E. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
  1. Seal edges of openings in countertops with a coat of varnish.

## 2.06 INTERIOR STANDING AND RUNNING TRIM FOR OPAQUE FINISH (FIELD FINISHED)

- A. Grade: Premium.
- B. Wood Species and Cut: Poplar.
- C. For trim items wider than available lumber, use veneered construction. Do not glue for width.
- D. For rails wider or thicker than available lumber, use veneered construction. Do not glue for width or thickness.
- E. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.

**2.07 INTERIOR STANDING AND RUNNING TRIM FOR TRANSPARENT FINISH (FIELD FINISHED)**

- A. Grade: Premium.
- B. Wood Species and Cut: White maple, plain sliced.
- C. For trim items wider than available lumber, use veneered construction. Do not glue for width.
- D. For rails wider or thicker than available lumber, use veneered construction. Do not glue for width or thickness.
- E. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.

**2.08 PLASTIC-LAMINATE-CLAD CABINETS**

- A. Grade: Custom.
- B. Type of Construction: Frameless.
- C. Cabinet, Door, and Drawer Front Interface Style: Flush overlay.
- D. Cabinet Fabrication: 3/4-inch plywood boxes with 3/4-inch particleboard doors and drawer fronts.
- E. Shelving: Fabricated from particleboard with surfaces indicated, in the following thicknesses:
  - 1. Shelving up to 36- inches wide: 1-inch thick.
  - 2. Shelving 36- inches to 48- inches wide: 1-1/4-inch thick.
- F. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate complying with the following requirements:
  - 1. Horizontal Surfaces Other Than Tops: Grade HGS.
  - 2. Vertical Surfaces: Grade HGS.
  - 3. Edges: PVC edge banding, 0.12 inch (3 mm) thick, in color selected by Architect from manufacturer's full range.
  - 4. Pattern Direction: Vertically for drawer fronts, doors, and fixed panels.
- G. Materials for Semiexposed Surfaces:
  - 1. Horizontal Surfaces, Shelves: Grade HGS.
  - 2. Surfaces Other Than Drawer Bodies: Thermoset decorative panels.
    - a. Edges of Plastic-Laminate Shelves: PVC edge banding, 0.12 inch (3 mm) thick, in color as selected by Architect from manufacturer's full range.
    - b. For semi-exposed backs of panels with exposed plastic-laminate surfaces, provide surface of high-pressure decorative laminate, Grade VGS.
  - 3. Drawer Subfronts, Sides and Backs: Solid-hardwood lumber.
  - 4. Drawer Bottoms: Hardwood plywood.

- H. Concealed Backs of Panels with Exposed Plastic Laminate Surfaces: High-pressure decorative laminate, Grade BKL.

## **2.09 CLOSET SHELVING**

- A. Closet Shelving: Made from the following material.
  - 1. Melamine-faced particleboard with applied PVC front edge.
  - 2. Shelving up to 36- inches wide: 1-inch thick.
  - 3. Shelving 36- inches to 48- inches wide: 1-1/4-inch thick.
- B. Shelf Brackets with Rod Support: BHMA A156.16, B04051; prime-painted formed steel.
- C. Shelf Brackets without Rod Support: BHMA A156.16, B04041; prime-painted formed steel.

## **PART 3 - EXECUTION**

### **3.01 PREPARATION**

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

### **3.02 INSTALLATION**

- A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
- C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.
- F. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Do not use pieces less than 96 inches long, except where shorter single-length pieces are necessary. Scarf running joints and stagger in adjacent and related members.

1. Fill gaps, if any, between top of base and wall with plastic wood filler, sand smooth, and finish same as wood base if finished.
  2. Install standing and running trim with no more variation from a straight line than 1/8 inch in 96 inches.
- G. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
  2. Maintain veneer sequence matching of cabinets with transparent finish.
  3. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips.
- H. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.
- I. Refer to Division 12 Section "Simulated Stone" for solid surfacing countertops installed with interior architectural woodwork.

### **3.03 SHELVING INSTALLATION**

- A. Install shelf brackets according to manufacturer's written instructions, spaced not more than 36 inches o.c. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors.
- B. Cut shelves to neatly fit openings with only enough gap to allow shelves to be removed and reinstalled. Install shelves, fully seated on cleats, brackets, and supports.
  1. Fasten shelves to brackets to comply with bracket manufacturer's written instructions.

### **3.04 ADJUSTING AND CLEANING**

- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

**END OF SECTION**