

OAK LABORATORY ARCHITECTURAL SPECIFICATION

2.0 GENERAL

- A.** The intent of this specification is to set forth construction and design standards that will result in an installation of cabinetry of REVEAL FLUSH OVERLAY CONSTRUCTION.
- B.** Materials used shall meet or exceed these minimum standards specified.

2.1 MATERIALS

- A. Lumber**
 - 1. All exposed solid woods shall be oak hardwood lumber, selected as to color and grain, free and clear of defects and kiln dried to a moisture content not exceeding 6%.
 - 2. Exposed plywoods are to be Plain Sliced Red Oak, book matched, Grade A, veneer one.
- B. Hardwood**
 - 1. Hardwood sheets are ¼" thick, as called for, composed of fibre and resin binder molded under high pressure to a tensile strength of 3500 p.s.i. and a sheer strength of 4500 p.s.i.
- C. Glass**
 - 1. Unless otherwise specified, glass panels are of best quality, double strength, 1/8" thickness, for framed glass doors. Frameless glass sliding doors to be ¼" plate glass, all edges ground.

2.2 HARDWARE

- A.** In general, hardware and trim shall be of the best quality available for the use intended. All exterior hardware shall be uniform in finish appearance, satin black finish or as specified herein.
- B.** Drawer and door pulls shall be solid ABS black type held in place with screws 4" on center, or as specified.
- C.** Hinges shall be concealed type with between 165 and 170 degrees swing, self closing, nickel plated. Hinge to have three dimensional independent adjustability.
- D.** Locks shall be applied to doors and drawers on all items of equipment specified or when called for on the drawings.
 - 1. Locks shall be dead bolt or cam type with disc tumblers.
 - 2. Locks shall be furnished in a chrome plate finish with two (2) solid brass keys to each lock.

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- E.** Magnetic catches shall be 2 heavy duty 14 pound pull, double magnet type, adjustable, for tall cabinet doors. One roller catch shall be used for each base and wall cabinet door, when other than concealed hinges are used.
- F.** Elbow catches and strike plates shall be used on left hand doors of double door cases when locked and shall be of aluminum.
- G.** Pull chain and dead bolt shall be used on left hand doors of double door floor cases when locked.
- H.** Drawer slides shall be heavy duty mechanical precision ball bearing slides equipped with 15/16" diameter self lubricating nylon rollers and shall have a load rating of 75 pounds per set. Slides shall have automatic out stops and shall permit the easy removal of drawers without the use of tools or devices. Slides shall not be an integral part of the drawer side. Drawer slides for file drawers shall be full extension, and have a load rating of 100 pounds per set. All slides shall have a clear chromate zinc plated finish. Epoxy coated slides supplied when specified.
- I.** Shelves shall be adjustable on 1 ¼" centers on plastic coated steel clips. Shelves longer than 4 feet shall be supported by a full depth center bracket.

2.3 BASE CABINETS

- A.** All cabinets shall be self supporting modular units to permit future changes and efficient handling.
- B.** Cabinet fronts, doors and drawers to be cut from the same panel and vertically matched.
- C.** Cabinet joints shall be of blind rabbet and dado joinery and shall be glued, screwed and wedged together in pressurized squaring clamps.
- D.** Cabinet ends shall be constructed of ¾" panels blind dados full depth to receive the top panel and cabinet bottom.
- E.** Exposed ends are to be plain sliced red oak 7 ply plywood with exposed edges of end panels to be finished with an oak edge.
- F.** Unexposed ends are to be 7 ply hardwood plywood. Front edge of end panel to be finished with an oak edge.
- G.** Base cabinets shall have integral toe space 4-1/4" high, 2-1/2" deep with toe rail set tight against underside of cabinet bottom, glued and secured to ends.

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- H. Backs shall be constructed of a two piece, sway resistant frame of $\frac{3}{4}$ " panel, top member 9-1/2" wide and bottom member 6" wide. Removable backs of cupboard units shall be made of $\frac{1}{4}$ " hardboard and held to the back frame with screws. Exposed interior cabinet backs shall be constructed of a matching material the same as the cabinet sides, and fastened with screws. Finished cabinet exterior backs shall be $\frac{3}{4}$ " panel rabbeted in the cabinet ends when required.
- I. Bottom panels shall be hardwood plywood if unexposed, or Oak plywood if exposed, and shall be blind rabbeted into cabinet ends for the full depth of the panels, glued and screwed and with exposed edge to be finished with an oak edge.
- J. Top panels of $\frac{3}{4}$ " plywood with oak edge rabbeted into the cabinet ends for full depth of the panels, glued and screwed.
- K. When locks are called for and are keyed differently, security panels are required of $\frac{3}{4}$ " thick hardwood plywood rabbeted into cabinet ends, for the full depth of the panels, fastened with glue and screws.
- L. Drawer box front, back and sides of 9 ply Baltic birch $\frac{1}{2}$ " thick with top edges eased. Sides shall be attached to front and back by means of dove-tail joints. Drawer fronts, back and sides to be grooved for a $\frac{1}{4}$ " thick bottom of white inished non-porous materials. Drawer shall have applied, removable fronts constructed of $\frac{3}{4}$ " thick oak plywood. Fronts shall be edged in oak edgeband.
- M. Doors shall be $\frac{3}{4}$ " oak plywood with an oak edge. Pulls and hinges as specified elsewhere.
- N. Cupboard shelves shall be $\frac{3}{4}$ " oak plywood if exposed and hardwood plywood if unexposed, with oak edging on front edge. Shelf to be full width and full depth of cabinet.
- O. Pull out shelves shall be $\frac{3}{4}$ " oak plywood with oak front edge. Sides shall have an oak finished edge. Pullout shelves shall be mounted on side runners.

2.4 WALL CABINETS

- A. Wall cabinets, either wall hung or mounted on counters, shall have all exposed surfaces constructed of $\frac{3}{4}$ " panels as specified for base cabinets. Ends shall be blind dadoed to receive top and bottom panels and backs. Exposed ends constructed of plain sliced red oak.
- B. Tops and bottoms shall be constructed of a 1" plywood panel. Tops and bottoms to be blind rabbeted, glued and screwed into cabinet ends.
- C. Cabinet backs shall be $\frac{1}{4}$ " hardboard set in rabbets in cabinet ends, glued and secured to ends, top and bottom with fasteners and further reinforced with glue blocks. Backs in cabinets with glazed doors or with doors omitted shall be $\frac{1}{4}$ " oak plywood. Backs shall be set in 7/8" to permit scribing to wall.

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- D. Wall cabinets may have hinged or sliding doors or may be open. Hinged doors are $\frac{3}{4}$ " oak plywood or glass with frame of 3" x $\frac{3}{4}$ " solid hardwood using glued dowel construction.

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- E. Sliding doors are $\frac{3}{4}$ " oak plywood as described for hinged doors, or glass as described for hinged doors. Two single wheel adjustable side mount carriers shall be attached to the back of each door. Carriers will ride on an extruded aluminum track. Doors shall be separated by a nylon floor guide.
- F. Frameless plate glass sliding doors to be nominal $\frac{1}{4}$ " thick with all edged ground smooth. Glass to be set into an 'H' section of aluminum track with friction type or glazing strip. "H" Sections to have two nylon rollers which will ride on bottom track assembly for effortless and noiseless sliding.
- G. Adjustable shelves shall be provided in standard depths. Two shelves in cabinets 30" high. Each shelf shall be supported on clips as specified. Shelves shall be minimum of 1" oak plywood finished with an oak front edge.

2.5 TALL STORAGE CABINETS

- A. Tall storage cabinets shall have all exposed surfaces constructed of $\frac{3}{4}$ " panels similar to wall and base cabinets. Ends shall be blind dadoed to receive top and bottom panels and rabbeted backs. Exposed ends constructed of plain sliced red oak.
- B. Cabinet bottoms shall be $\frac{3}{4}$ " plywood blind rabbeted into the cabinet ends, glued, screwed and reinforced with glue blocks. Bottoms shall be oak plywood if exposed, hardwood plywood if unexposed.
- C. Tops shall be constructed of a 1" plywood panel. Tops shall be oak plywood if exposed, or hardwood plywood if unexposed. Tops shall be blind rabbeted, glued and screwed into the cabinet ends.
- D. Cabinet backs shall be $\frac{1}{4}$ " hardboard set in rabbets in cabinet ends, glued and secured to ends, top and bottom with fasteners and shall be further reinforced with glue blocks. Backs shall be set in $\frac{7}{8}$ " to permit scribing to walls. Cabinet backs shall be $\frac{1}{4}$ " oak plywood when exposed.
- E. Cabinet doors, either sliding or hinged are to be $\frac{3}{4}$ " thick oak plywood. Framed glazed doors, either sliding or hinged are $\frac{3}{4}$ " x 4" solid oak.

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- F. Adjustable shelves shall be provided in standard depths. Five shelves in each cabinet. Each shelf shall be supported on adjustable shelf clips. Shelves shall be 1" oak plywood, finished with an oak front edge.

2.6 TABLES

- A. Table, frames, housings and rails shall be constructed of minimum $\frac{3}{4}$ " thick solid oak with apron rails secured by steel angle braces dadoed into position and secured by screws. Rails shall be butt joined to table legs and held tight by a hanger bolt through brace into the leg.
- B. Cross rails shall be constructed of 1" oak veneered plywood dadoes and glued into front and back apron rails not more than 48" apart. Drawer support rails shall be provided for all drawer openings.
- C. Table legs are to be solid oak and are to be 2-1/4" square. When specified, legs shall be joined with 2-1/4" x 7/8" thick solid oak stretchers which are butt jointed to legs. Stringers shall be used between pairs of legs when more than 60" apart and shall be dadoed into stretchers and fastened by a $\frac{1}{4}$ " x 3-1/2" bolt through the leg into a metal insert in the stretcher. Legs are equipped with adjustable levelers and black rubber shoes.
- D. Welded-frame tables are fabricated from 1-1/4" square, 16 gauge steel tube. All joints electrically welded and ground smooth wherever exposed. Frames are cleaned and sprayed with one coat of corrosion-resistant primer on all exposed surfaces and oven dried. Final finish of one coat flat black polyester is applied and oven dried.

2.7 MISCELLANEOUS

- A. Fillers shall be made from $\frac{1}{4}$ " or $\frac{3}{4}$ " thick oak plywood. Overlay fillers for end of bench assemblies shall be $\frac{1}{4}$ ". All face fillers shall be $\frac{3}{4}$ " and shall be installed flush with cabinet end panel leading edge.
- B. Knee space panels shall be made from $\frac{3}{4}$ " thick oak plywood.

2.8 FINISHING

- A. All exposed cabinet joints and fastener holes to be filled and sanded. Cabinet surfaces shall be smoothly sanded removing fiber, scratch marks and all dust.
- B. All exposed cabinet surfaces, including interiors of cabinets with framed glass doors and open shelving cabinets shall be finished with an acid, alkali, solvent, water and abrasion resistant finish and if required, surfaces shall be stained. After the stain has properly dried, the cabinet is to be given a sealer coat using a catalyzed sealer. After the sealer coat has dried, it is to be sanded, all dust removed and the finish coat of catalyzed varnish is applied. Semi exposed surfaces receive a coat of catalyzed sealer.