

STANDARD SPECIFICATION
JANUARY 2010

DIVISION 11

**SECTION 11B KITCHEN CABINETS, VANITY CABINETS AND
 COUNTERTOPS**

11B.01 GENERAL: Comply with all of the Contract Documents.

11B.02 SCOPE OF WORK: Refer to "Division Scope of Work"

11B.03 WORK NOT INCLUDED

A. The following items are excluded from the work of this Section:

1. Kitchen equipment - Section 11A.
2. Sink installation - Section 15B.

11B.04 GENERAL REQUIREMENTS

- A. The General Contractor shall be responsible for the quality of materials used for fabrication of cabinets and quality of installation.
- B. All cabinets, counter tops including splash boards and edging material shall have a manufacturers guarantee against de-lamination and other defects in materials, construction, and workmanship, and shall be in effect from the date indicated and General Contractor shall furnish labor and material to replace defective units during guarantee period. See 11B.08 GUARANTEES of this Section.
- C. Filler pieces and scribe moulds pieces shall be provided for closures and scribing against all walls where cabinets do not abut wall tightly.
- D. Cabinetwork (base sink cabinets) shall be coordinated with the Plumbing Work and Plumbing Contractor for sink installation.

11B.05 PRODUCT

A. Kitchen Cabinets:

1. Kitchen cabinets shall be Extreme™ Series, manufactured by Armstrong World Industries, Inc., with plantation hardwood solid doors Coronet™ or approved equal, as determined by Architect/Engineer.
 - a. Regular Apartments;
 - Base cabinet height shall be – 34 ½” AFF

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- b. Handicap Adaptable Apartments;
 - Base cabinet height shall be – 32 ½” AFF

B. Vanity Cabinets:

1. Vanity cabinets shall be:

- a. Regular Apartments; V2421 Series, as manufactured by Direct Builders Supply a Division of CNC Associates Inc., or approved equal, as determined by Architect/Engineer.
- b. Handicap Adaptable Apartments; HAV2421 Series, as manufactured by Direct Builders Supply a Division of CNC Associates Inc., or approved equal, as determined by Architect/Engineer.

C. Lumber shall be of the best grade obtainable of the respective kinds, as defined by the rules of the recognized associations of lumber manufacturers producing the materials herein specified and shall be thoroughly dried to moisture content of 6 percent.

D. Plywood shall conform to latest U.S. Product Standard, and shall be interior type, hardwood plywood, bonded with exterior glue for all components of the cabinets and counter tops where plywood is specified. Plywood grades shall suitable for cabinet interiors including shelves, tops, sides and bottoms.

E. Plastic laminate shall be standard decorative laminate – post-forming type, Wilsonart® Type 350, manufactured by Wilsonart® Laminate or approved equal with colors and patterns selected by Architect/Engineer.

Plastic laminate physical characteristics:

- 1. Sheet thickness: 0.039” (1.00 mm) plus/minus 0.005” (0.127 mm)
- 2. Exceeding performance requirements of NEMA LD 3-1995 Grade HGP.
- 3. Surface burning characteristics in accordance with ASTM E 84; unbonded:
 - a. Flame spread 60
 - b. Smoke developed 35

11B.06 CONSTRUCTION OF KITCHEN CABINETS

A. Wall and base cabinets shall be of the same construction and outside appearance, and must have:

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1. Front Frame:
 - a. Cabinets shall be constructed with front frame members of sound kiln dried hardwood.
 - b. Front frame shall be 3/4" nominal thickness. All frame members shall be mortise and tenon or bore and dowel construction joinery reinforced with glue and nails.
 - c. Frame components;
 - Stiles 1 1/2" wide
 - Mulls 3" wide
 - Rails 1 3/4" wide
 - d. Stiles and top and bottom rails dadoes to receive ends, tops and bottoms
 - e. After assembly front face of the frame shall be drum sanded to ensure smooth surfaces, free of machine marks and defects.
 - f. End rails of face frame shall be grooved to receive end panels as herein specified and attachment shall be effected through the use of glue blocks stapled to the inside of face member and end panel or by other approved methods.

2. End Panels:
 - a. End panels shall be 1/2" thick, multi-ply Type 1 exterior glue hardwood plywood, dadoes to receive tops and bottoms. Ends are inserted into dado in face frame and recessed 3/16" and rabbeted to receive backs.
 - b. Exposed* end panels to receive oak veneer on exterior surface of the panel.
 - * NOTE: Unexposed cabinet ends are defined as those which abut adjoining cabinets or walls for their full depth, with the space covered by a closure molding; all other conditions are considered to be exposed cabinet ends.
 - c. End panels shall stop 3 1/2" above finished floor.

3. Back Panels:
 - a. Backs of cabinets shall be 1/4" thick softwood plywood attached to minimum size 3/4" x 3 1/2" solid wood hanging rails, which shall be mortised to receive back panel.

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NOTE: Back panel for sink base cabinets shall require cutouts for piping.

b. As an alternate, bottom of back panel may overlap, and be glued/stapled to a minimum size 3/4" x 1 5/8" solid wood bottom rail.

4. Shelves:

a. Cabinet shelves shall be 1/2" thick, multi-ply hardwood plywood, 10 7/8" deep with hardwood veneer banded front edge. Shelves are fixed into dadoes in end panels on all cabinets.

b. Two shelves for wall cabinets shall be provided (except those above refrigerators, which do not require any shelves), half shelf for base cabinets and none for sink cabinets.

5. Doors:

a. Doors shall be square raised solid panel door - Coronet™, 3/4" thick solid oak or plantation hardwood.

b. Doors shall be routed to give a raised panel-in-frame appearance and they shall have all edges shaped to form lip, which will permit opening of door with fingertip. All edges shall be sanded smooth prior to final finish.

c. Doors shall be able to be opened freely 180 degrees.

6. Cabinet Top/Bottoms:

a. Top/Bottoms of base cabinets shall be 1/2" multi-ply hardwood plywood with exterior glue. Tops and bottoms let into end panels, front rails and hang rails, glued and stapled.

b. Bottoms are supported at rear of base cabinets by 1/2" thick multi-ply hardwood plywood.

7. Toe Board:

a. Toe board shall be 3/4" thick, ACQ * pressure treated wood board captured between end panels.

NOTE *: Toe board is made of "ACQ" – Alkaline Copper Quaternary pressure treated lumber, with non-arsenic wood preservative, meeting AWPA (American Wood-Preservers Association) Standard C2.

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8. Base Corner Braces:
 - a. Base corner braces shall be two (2) 3/4" x 1 1/2" solid hardwood plywood running full depth (front to back) of cabinet. All braces shall be glued and pinned at top of cabinet to front frame, rear hanging rail and end panels
9. Hanging Rails:
 - a. Wall cabinets; Nominal size 3/4" thick x 3" high multi ply hardwood plywood, running full cabinet length at the top and bottom.
 - b. Base cabinets; Nominal size 3/4" thick x 7 1/4" high solid pine at the top.
 - c. All hang rails shall be rabbeted to inset in the end panels and to receive back panels
10. Drawers:
 - a. Drawers shall be constructed of a full four-sided box, with attached decorative front similar to doors. Four sides of drawer box shall be 11/16" solid pine lumber, grooved to receive 1/4" hardwood plywood drawer bottoms. Back of box shall be grooved into sides, and front of box shall be rabbeted into sides. All drawer box parts shall be glued and stapled together.
 - b. Drawer decorative front shall be routed to give a raised panel-in-frame appearance and they shall have all edges shaped to form lip, which will permit opening of door with fingertip. Drawer fronts shall be attached to drawer boxes with at least four wood screws, in addition to staples and glue. All edges shall be sanded smooth prior to final finish.
 - c. Drawer shall operate on side mounted metal rails (guides).
11. Hardware:
 - a. Door hinges shall be; Semi-concealed spring-loaded self-closing hinges with sound deadening buttons.
 - b. Drawer Guides shall be; Extreme Grade, high quality epoxy coated steel, side-mounted guides with built-in stops, self-closing and stay-closed features (100 lb. rated load capacity). Adjustable mounting brackets shall be screwed to solid pine back panel.

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12. Finish:
- a. Furniture quality protective finish system on all doors, drawers fronts, front frames and veneer end panels consisting of sanding, stain, catalyzed sealer and catalyzed clear top coats.
 - b. Finish shall be selected by Project Architect from manufacturer's standard color selection (Chestnut, Cordovan, Honey or Snow).

11B.07 CONSTRUCTION OF VANITY CABINETS

- A. Vanity cabinets for Regular and Handicap Adaptable Apartments shall be of the same material construction and outside appearance, and must have:
1. Regular Apartments:
 - a. Cabinet entire construction shall be; 5/8" multi-ply Type 1 exterior glue, hardwood plywood with high-pressure laminate on exposed exterior of the cabinet and high-pressure laminate on the interior. All edges shall be PVC bonded for a finished appearance, matching exterior of the cabinet.
 - b. Cabinet ends, doors, backs, nailers, bottoms toe-kicks shall be bored, doweled and secured with exterior type adhesive.
 - c. For cabinet sizes and design see Architect drawings.
 - d. Hardware:
 - 1) Door hinges shall be; fully concealed Euro type spring hinges, in chrome finish (two per door), providing opening up to 95° degrees for easy access.
 - 2) Wire type, chromium plated pulls in US 26 finish.
 - 3) (4) adjustable stainless steel (US32D) legs.
 - e. Finish shall be white laminate.
 2. Handicap Adaptable Apartments:
 - a. Vanity cabinets for handicap adaptable apartments shall be constructed according ANSI and UFAS Standards, which require a knee space under a lavatory. All cabinets for adaptable apartments shall be removable type, with wall permanently mounted countertop stretcher braces (brackets) support, that fits inside the removable cabinet.

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- b. Cabinet entire construction (permanent and removable) shall be; 5/8" multi-ply Type 1 exterior glue, hardwood plywood with high-pressure laminate on exposed exterior of the cabinet and high-pressure laminate on the interior. All edges shall be PVC bonded for a finished appearance, matching exterior of the cabinet.
- c. Cabinet ends, doors, backs, nailers, bottoms toe-kicks shall be bored, doweled and secured with exterior type adhesive. Removable portion of cabinet shall be secured with the screws from inside to wall attached countertop lavatory.
- d. Removable panel shall be attached to stretcher braces (brackets) for pipe protection.
- e. For cabinet sizes and design see Architect drawings.
- f. Hardware:
 - 1) Door hinges shall be; fully concealed Euro type spring hinges, in chrome finish (two per door), providing opening up to 95° degrees for easy access.
 - 2) Wire type, chromium plated pulls in US26 finish
 - 3) (4) adjustable stainless steel (US32D) legs.
 - 4) (4) four plastic and metal holders for removable panel.
- g. Finish shall be white laminate.

11B.08 COUNTERTOPS

- A. Countertops for kitchens and bathroom vanity cabinets shall be:
 - 1. Countertops, back splashes and side splashes shall be made from 3/4" thick 5 ply, interior grade hardwood plywood, bonded with exterior glue, and laminated with decorative laminate – post-forming type.
 - a. The countertop shall be post formed with a 4" high back splash and a 4" high self-edged side splash against walls..
 - b. The nose of the counter top shall be the no-drip type.
 - 2. If Architect/Engineer choose “bull-nose” type edge, the plastic laminate shall be wrapped around the nose and returned 1" underneath the countertop. See Architect drawings for details.

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3. Kitchens with tiled wall between counter top and wall-cabinet shall be constructed as follow;
 - a. The counter top shall be made from ¾" thick, 5 ply, exterior grade plywood with laminated high pressure plastic at the top.
 - b. 1 ½" counter top perimeter edge (front, sides & back) shall be laminated with the same type and finish plastic.
 - c. All joints between counter top and tiled wall shall be tooled with Sikaflex® 11FC, one component, gun-grade, adhesive/sealant compound (polyurethane based sealer), manufactured by Sica Corporation, or approved equal. For references, see Scope of Work, and Architect Drawings for Kitchen Elevations and Finish Schedule.
4. All countertops shall be made in one piece for the full length.
5. Countertop cutouts for the sinks shall be provided by Plumbing Contractor according to manufacturer templates, for approved type of the sink.
6. Countertop cut edge of plywood, at sink opening shall be sealed with three coats of spar varnish, Impervo® 440 Spar Varnish 440 manufactured by Benjamin Moor Co., or approved by Architect/Engineer.
7. Installation of the sink shall be provided by Plumbing Contractor with an approved type of silicon sealer. See DIVISION 15 Section 15B PLUMBING
8. Front and sides of all countertops shall overhang base cabinets. Countertops shall be secured to base cabinet with a minimum of four wood screws (one in each corner). For counter top, covering several of base cabinets, adequate number of screws shall be provided to secure countertop. Provide full side-splash at wall or partial where window exists, to the extent of the wall, as shown on Contract Drawings.

11B.09 INSTALLATION

1. In order for cabinets to work properly and look right, they must be installed level, plumb, and flush with each other.
2. The wall behind the cabinets should be smooth, level, painted and clean.
3. All kitchen cabinets shall be secured to the wall blocking/backing behind gypsum board with proper mounting hardware (screws, bolts, etc.) All securing hardware of whatever type shall be spaced no greater than 12" on center.

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4. For each cabinet, at least three screws should penetrate the wall blocking/backing by at least 1 1/2 inches.
5. Provide softwood or plastic shims for leveling of base cabinets. In no event, however, are the cabinets to be shimmed to a point where more than 1/2" clear exists at any one point between the abutting floor tile and the cabinet base.
6. All cabinetwork shall be coordinated with the Plumbing Work. The Plumbing Contractor shall take his measurements from the approved type sink; provide proper contour and cutout in the counter top. Then Plumbing Contractor shall properly seal edges of counter top, and install sink with approved type of silicon sealer.

11B.10 SHOP DRAWINGS

- A. Submit shop drawings with all details and information, including color, style etc., to Architect/Engineer for approval, prior to installation. Layouts and locations of cabinets shall be included.
- B. Samples of kitchen and vanity cabinets shall be delivered to Architect/Engineer, for review and approval prior to the fabrication.

11B.11 GUARANTEES

- A. Guarantee all items of work furnished and installed under this Section for (1) one year, in addition to manufacturer's standard warranties. All guarantees to be from the date, when **Final Certificate of Occupancy** is issued from Department of Buildings.

END OF SECTION