

## Chapter 22 - Cabinets & Vanities

### Things to Consider

- The Kitchen cabinets will be ADA compliant. The toe kicks will be 9” high.
- The ADA compliant homes will not have Bathroom vanities.
- Boric acid will be used below all Kitchen base cabinets.

### Components

Cabinets & Vanities	Countertops
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### Timing & Prerequisites

- This phase of the project cannot begin until the vinyl flooring is complete.
- The House/Project Lead will work with the Habitat Supervisor to co-ordinate these volunteer activities.

Materials Needed	
Cabinets & Vanities	Countertops
Cabinets Vanities Cabinet Knobs Kick-Plates Cabinet Screws 3” Deck Screws Wood Screws (1 ½ x stile) Shims Boric Acid	Counter Tops Adhesive Caulk

Phase Specific Tools Needed	
Description:	Quantity:
<b>Framing</b>	
<ul style="list-style-type: none"> <li>○ Countersink Bit</li> <li>○ Torpedo Level</li> <li>○ Cabinet Knob Template</li> <li>○ Caulking Gun</li> <li>○ Compressor</li> <li>○ Brad Nailer</li> <li>○ Air Hose</li> </ul>	

## Activities

### Layout Cabinets

1. Check the Cabinets
  - Verify that all of the right cabinets have been delivered.
  - Unpack the cabinets and save the cardboard for later. After the cabinets are installed, the cardboard can be laid on the vinyl flooring to protect it.
  - Stage the cabinets in an area close to the kitchen.
  - Place them in order.
  - Inspect them for damage.
2. Identify the Location for the Cabinets
  - Mark out the cabinet locations on the floor
  - Mark a level line on the wall for the top of the wall cabinets. This should be 84" from the highest point of the finished floor.
  - Mark a level line on the wall for the top of the base cabinets. This should be 34 ½" from the highest point of the finished floor.
  - Find a place where the wall cabinets align with the base cabinets. This will usually be at the end of the run. Mark a plumb line from the side of the base cabinet to the line for the top of the wall cabinets.
  - Mark the position of each cabinet on the lines.
3. Identify on which side the doors will hinge. Mark the top edge of the cabinet.
4. Confirm the location of the blocking or studs using a stud finder. Place "x"s on the line.
5. Confirm that the wiring for the range hood comes through the wall below the cabinets. You may need to dig out some drywall to move it down below the cabinets.

### Prepare Wall Units

1. It is best to start with the wall units to allow room for the volunteers to lift the cabinets into place.
2. Connect all of the cabinets in the run together before lifting them into place.
3. Attach the cabinets at the stiles.
  - Remove the doors and shelves and set them aside. Be sure to keep track of which doors belong to which cabinets.

- Place the cabinets side by side on a level surface.
- Align the stiles and clamp them together using a pair of clamps.
- Drill pilot holes with a countersink through the stile. The holes should be made in the area covered by the hinge.
- Connect the cabinets using a wood screw which is 1 ½ times the size of one stile.

### **Install Wall Units**

1. Position the cabinets
  - Two or three volunteers will need to lift the run of cabinets into place.
  - Flush the cabinets to the line on the wall.
2. Attach the cabinets to the wall
  - Insert 3” drywall screws through the top edge of the back of the cabinets into the blocking.
  - Start with one screw into each end of the run of cabinets.
  - Check the level with a 4’ level across the top of the cabinets. Adjust as needed.
  - Check the alignment of the cabinets with a 4’ level across the front of the face frames. Add shims behind the cabinets to bring them out even.
  - Finish attaching the top of the cabinets with 3” drywall screws using at least 2 per cabinet.
  - Attach the bottom of the cabinets with 3” drywall screws through the lower edge of the back. Make sure to check the alignment of the bottom face frames and shim as needed.

### **Prepare Base Units**

1. Remove the doors, shelves, and drawers and set them aside. Be sure to keep track of which cabinets they came from.
2. Cut holes in the back of any cabinets which will be located in front of plumbing or electrical connections.
  - Measure up from the floor and in from the adjoining cabinet to find the location for the hole.
  - The back of most cabinets can be cut with a utility knife, but a jig saw can be used.

### **Install Base Units**

1. Set the cabinet into position.
2. Draw a line on the floor along the front of the toe kick of the cabinet.

3. Remove the cabinet
4. Mark a line  $\frac{3}{4}$ " back from the first line.
5. Cut a 12" piece of 2x4. Position it flat on the floor behind the back line and in the center of the cabinet. Screw it to the floor with 2  $\frac{1}{2}$ " deck screws.
6. Spread Boric Acid in area below cabinets.
7. Set the cabinet back in place. It should fit over the blocking
8. Check the level side to side. The top edge should be flush to the level line on the wall. Shim the bottom to bring the back level.
9. Check the alignment of the front of the cabinets with a 4" level across the fronts of the face frames. Shim the back to bring the cabinet in line.
10. Check the level front to back. Using a 12" torpedo level, level the cabinet. Shim the bottom to bring the front to level.
11. Attach the top of the back of the cabinet to the wall using 3" decking screws. Recheck the level and adjust as needed.
12. Recheck the level.
13. Attach the bottom of the cabinet to the blocking with 3" decking screws through the Toe-kick into the block.
14. Clamp the stiles together using a pair of clamps.
15. Drill pilot holes with a countersink through the stile. The holes should be made in the area covered by the hinge.
16. Connect the cabinets using a wood screw which is 1  $\frac{1}{2}$  times the size of one stile.
17. Cut and install the kick-plate using the brad air-nailer.

### **Reinstall and Adjust Doors**

1. Reattach the doors using the same screws in the same holes.
2. Place a straight edge across the bottom of the doors. Adjust the hinges until the doors rest flush on the straight edge.

### **Reinstall and Adjust Drawers**

1. Reinstall the drawers.
2. The fronts of the drawers should fit flush against the face frames and the drawers should slide easily. Adjust the drawer slides to get the drawer aligned. Make sure the drawer still slides easily.

### **Install Shelves**

1. Insert the shelf pins into the holes. Use the same set on both sides.
2. Position the shelf on the pins.

### **Install Cabinet Knobs**

All door and drawer pulls shall be a loop or U shaped handle style placed as high as possible on bathroom vanities

1. Using a cabinet knob template, mark the doors for the knob holes. A template is usually supplied on the box the cabinet was shipped in. This template can be cut out and used. Use the same template on all cabinets.
2. Drill the holes using a ¼" drill bit.
3. Install the knobs.

### **Install Countertops**

Install a plastic laminate countertop at the standard height of 36". Seal all bare wood and wood composite surfaces including the underside of the countertop with a low VOC sealant. Caulk countertop to adjoining walls.

1. If two or more pieces of countertops are required, assemble the pieces into one unit using the clamps provided. Make sure the tops are flush
2. In some houses, the countertop may need to be scribed to the side wall. A cardboard template and a jig saw can be used to accomplish this.
3. Seal all bare edges and underside of the countertops with a coat of polyurethane.
4. Apply low VOC latex adhesive caulk to the tops to the cabinets.
5. Position the countertop on the cabinets and flush to the wall.
6. Apply low VOC latex caulk along edge where the countertop meets the wall. Cut a very small hole in the tip of the tube. Apply a small bead of caulk along the tops and side of the countertop and smooth the caulk with a wet finger.

### **Prepare Vanities**

Note: ADA compliant homes will not have bathroom vanities and sink tops. They will be equipped with wall sinks which will not require volunteer activities.

1. Remove the doors, shelves, and drawers and set them aside.
2. Cut holes in the back of the vanity for plumbing connections.

The back of most cabinets can be cut with a utility knife, but a jig saw can be used.

### **Install Vanities**

1. Set the vanity into position.
2. Draw a line on the floor along the front of the toe kick of the vanity.
3. Remove the vanity.

4. Mark a line  $\frac{3}{4}$ " back from the first line.
5. Cut a 12" piece of 2x4. Position it flat on the floor behind the back line and in the center of the vanity. Screw it to the floor with 2  $\frac{1}{2}$ " deck screws.
6. Set the vanity back in place. It should fit over the blocking
7. Check the level side to side. Shim the bottom to bring the back level.
8. Check the level front to back. Using a 12" torpedo level, level the cabinet. Shim the bottom to bring the front to level.
9. Attach the top of the back of the cabinet to the wall using 3" decking screws. Recheck the level and adjust as needed.
10. Recheck the level.
11. Attach the bottom of the cabinet to the blocking with 3" decking screws through the kick plate into the block.
12. Cut and install the kick-plate using the brad air-nailer.

### **Install Vanity Knobs**

1. Using a cabinet knob template, mark the doors for the knob holes. A template is usually supplied on the box the cabinet was shipped in. This template can be cut out and used. Use the same template on all cabinets
2. Drill the holes using a  $\frac{1}{4}$ " drill bit.
3. Install the knobs.

### **Install Sink Tops**

1. Apply latex adhesive caulk to the top edge of the vanity.
2. Position the sink top centered on the vanity flush to the wall.
3. Press the sink top into position and hold for several minutes until the caulk sets up.
4. Apply latex caulk along edge where the sink top meets the wall. Cut a very small hole in the end of the tube Apply small bead along the edge; move quickly. Smooth the caulk with a wet finger.

## **Tips & Techniques**

## **Quality Assurance Checklist**