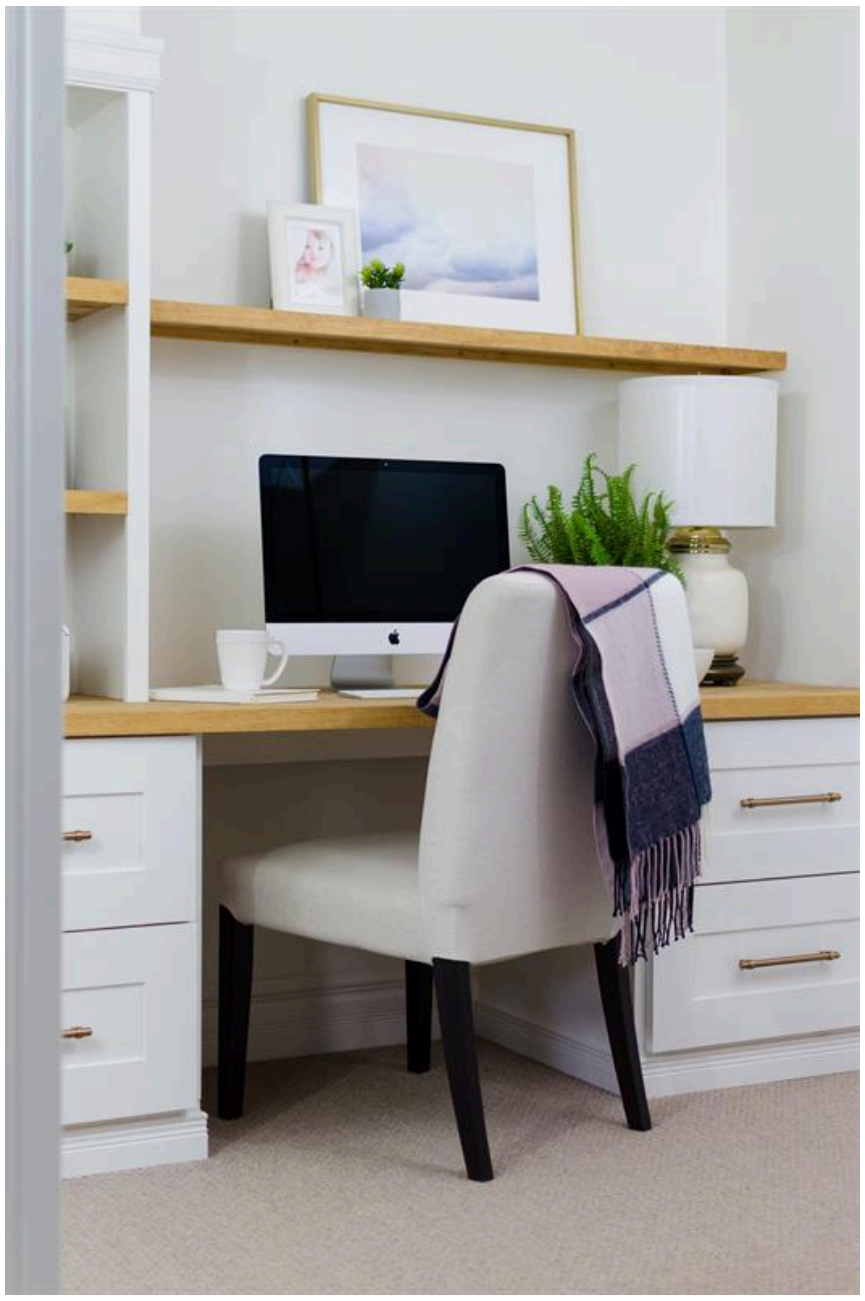
Large Modern Desk

Difficulty

Moderate

This modern desk is perfect for a home office. It has a large working surface with an abundance of storage within the deep drawers. The side shelving can be placed on either side of the unit and provides a great area to display photos and/or somewhere to store office supplies.






Canon


Canon

Tools

Kreg Tools



Accu-Cut™



Kreg® Pocket-Hole Jig 720



Drawer Slide Jig

Other Tools

Circular Saw (cordless)

Miter Saw

Table Saw

Tape Measure

Clamps

Drill (cordless)

Nail Gun

Sander

Shop Vacuum

Materials

Wood Products

3 Quality Plywood (Ie. Maple) , 3/4" Thick , Full Sheet

1 Plywood , 1/4" Thick , Full Sheet

6 Board , 1x2 , 96"

1 Decorative Base/Upper Trim , 3.5" , 18 Feet

6 Quality Project Boards (Ie. Poplar) , 1/4" X 4" , 48"

Hardware & Supplies

1 Paint (Simply White By Benjamin Moore)

1 Stain (Golden Oak By Minwax)

123 1 1/4" Kreg Pocket Hole Screws

146 1 1/4" 18GA Brad Nails

1 Wood Glue

4 18" Ball Bearing Drawer Slides (Full-Extension)

4 Drawer Pulls

64 3/4" 18GA Brad Nails

Cut List & Parts

4 Base Side Panels , 3/4" X 23" X 28 3/4"

2 Front Base Frame Span , 3/4" X 4" X 25 1/2"

2 Lower Back Frame Span Support , 3/4" X 24" X 3 1/2"

4 Top Frame Span Supports , 3/4" X 3" X 24"

2 Shelving Unit - Side Panels , 3/4" X 13 3/4" X 43 1/4"

1 Shelving Unit - Top Panel , 3/4" X 13 3/4" X 24"

8 Drawer Box Sides , 3/4" X 18" X 10"

8 Drawer Box Fronts & Backs , 3/4" X 20" X 10"

4 Drawer Base Inserts , 1/4" X 17" X 20 1/2"

4 Vertical Cabinet Face Frame , 3/4" X 1 1/2" X 24 3/4"

4 Horizontal Cabinet Face Frame , 3/4" X 1 1/2" X 22 1/2"

2 Shelving Unit - Face Frame , 3/4" X 1 1/2" X 43 1/4"

1 Shelving Unit - Upper Frame Horizontal , 3/4" X 1 1/2" X 22 1/2"

2 Shelving Unit - Shelf Face Trim , 3/4" X 1 1/2" X 22 1/2"

1 Desktop Face , 3/4" X 1 1/2" X 87"

2 Desktop End Trim , 3/4" X 1 1/2" X 24 3/4"

2 Shelving Unit - Shelves , 3/4" X 13 3/4" X 24"

4 Drawer Face Base , 3/4" X 12" X 25 1/2"

8 Drawer Face Trim Vertical , 1/4" X 3 1/2" X 12"

8 Drawer Face Trim Horizontal , 1/4" X 3 1/2" X 18 1/2"

1 Desktop , 3/4" X 24" X 85 1/2"

8 Drawer Slide Supports , 3/4" X 1 1/2" X 18"

1 Front Cabinet Connection , 3/4" X 2 1/2" X 34.5"

1 Back Cabinet Connection , 3/4" X 3" X 34 1/2"

1 Shelving Unit - Top Back Span , 3/4" X 1 1/2" X 24"

1 Shelving Unit - Bottom Back Span , 3/4" X 3" X 24"

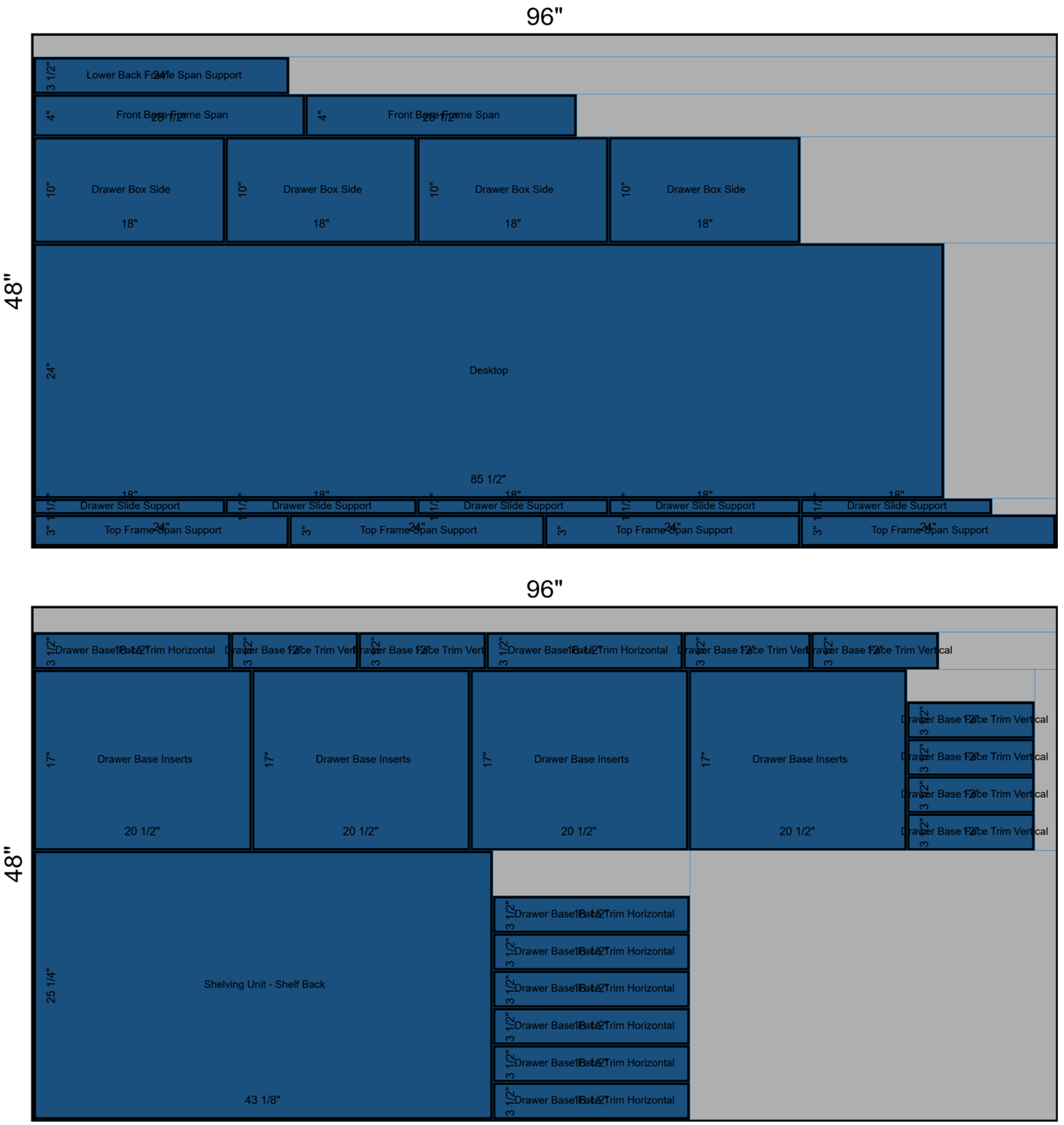
1 Shelving Unit - Shelf Back , 1/4" X 25 1/4" X 43 1/8"

4 Baseboard Outer And Inner Cabinets , 24 1/4" (See Diagram In The STEPS For Angles)

3 Baseboard Fronts + Shelving Unit Front Top Trim , 26 1/2" (See Diagram In The STEPS For Angles)

2 Shelving Unit Top Trim For Sides , 15" (See Diagram In The STEPS For Angles)

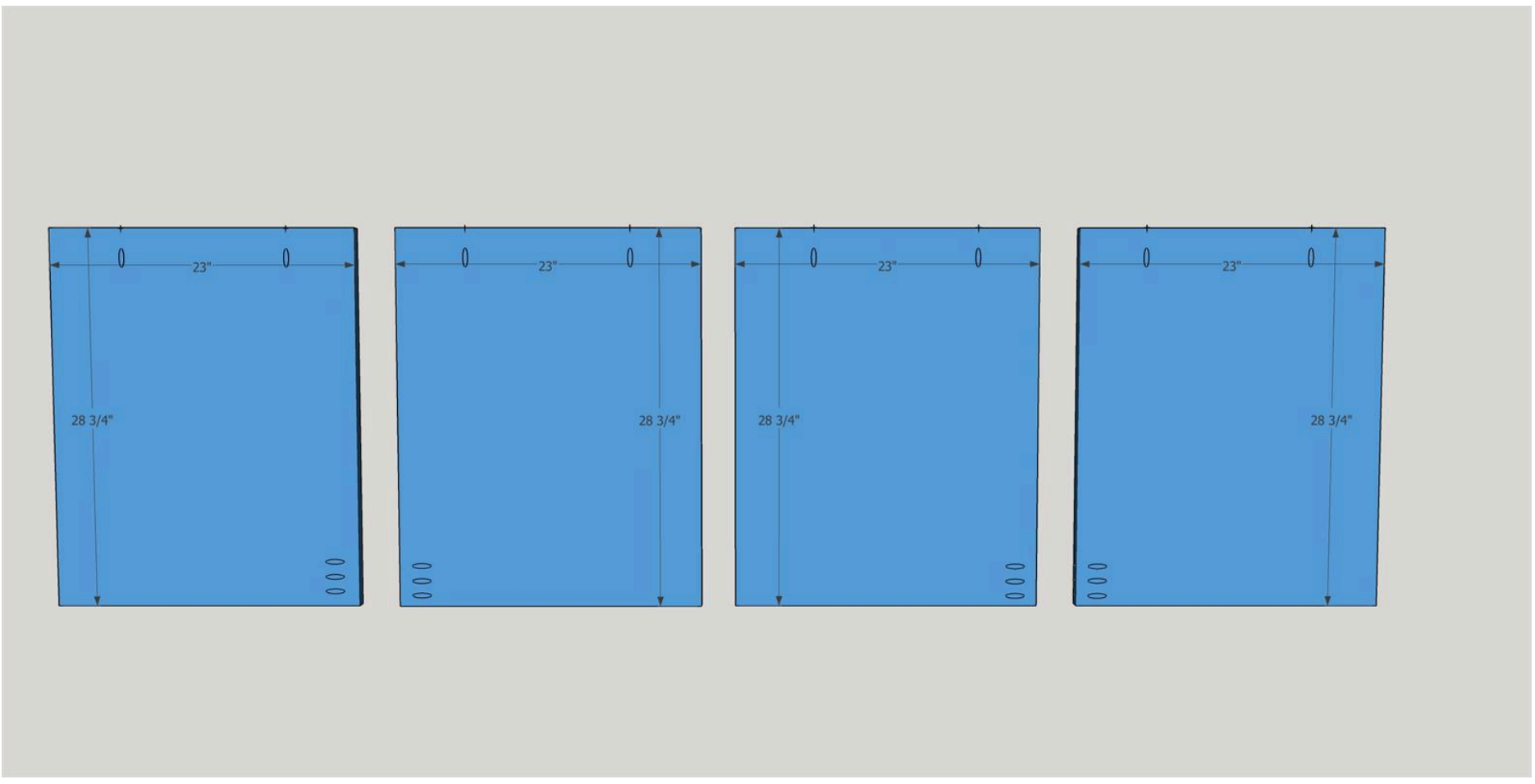
96"
48"
3"
Back Cabinet Connection
34 1/2"
1 1/2"
Front Cabinet Connection
34 1/2"
18"
18"
Drawer Slide Support
Drawer Slide Support
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
10"
Drawer Box Front
20"
1 1/2"
24"
Shelving Unit - Top Back Span
23"
Base Side Panel
28 3/4"
23"
Base Side Panel
28 3/4"
12"
Drawer Face Base
25 1/2"
12"
Drawer Face Base
25 1/2"
12"
Drawer Face Base
25 1/2"
12"
Drawer Face Base
25 1/2"
96"
48"
1 1/2"
18"
Drawer Slide Support
23"
Base Side Panel
28 3/4"
23"
Base Side Panel
28 3/4"
3 1/2"
24"
Lower Back Frame Span Support
3"
24"
Shelving Unit - Bottom Back Span
13 3/4"
Shelving Unit - Top Panel
24"
13 3/4"
Shelving Unit - Shelf
24"
13 3/4"
Shelving Unit - Shelf
24"
10"
Drawer Box Side
18"
10"
Drawer Box Side
18"
10"
Drawer Box Side
18"
10"
Drawer Box Side
18"
13 3/4"
Shelving Unit - Side Panel
43 1/4"
13 3/4"
Shelving Unit - Side Panel
43 1/4"


96"
48"
3 1/2"
Lower Back Frame Span Support
24"
4"
Front Base Frame Span
28 1/2"
4"
Front Base Frame Span
28 1/2"
10"
Drawer Box Side
18"
10"
Drawer Box Side
18"
10"
Drawer Box Side
18"
10"
Drawer Box Side
18"
24"
Desktop
85 1/2"
1 1/2"
Drawer Slide Support
18"
1 1/2"
Drawer Slide Support
18"
1 1/2"
Drawer Slide Support
18"
1 1/2"
Drawer Slide Support
18"
1 1/2"
Drawer Slide Support
18"
3"
Top Frame Span Support
24"
3"
Top Frame Span Support
24"
3"
Top Frame Span Support
24"
3"
Top Frame Span Support
24"
96"
48"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Vertical
3 1/2"
Drawer Base Face Trim Vertical
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Vertical
3 1/2"
Drawer Base Face Trim Vertical
17"
Drawer Base Inserts
20 1/2"
17"
Drawer Base Inserts
20 1/2"
17"
Drawer Base Inserts
20 1/2"
17"
Drawer Base Inserts
20 1/2"
3 1/2"
Drawer Base Face Trim Vertical
3 1/2"
Drawer Base Face Trim Vertical
3 1/2"
Drawer Base Face Trim Vertical
3 1/2"
Drawer Base Face Trim Vertical
25 1/4"
Shelving Unit - Shelf Back
43 1/8"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"
3 1/2"
Drawer Base Face Trim Horizontal
18 1/2"

Directions

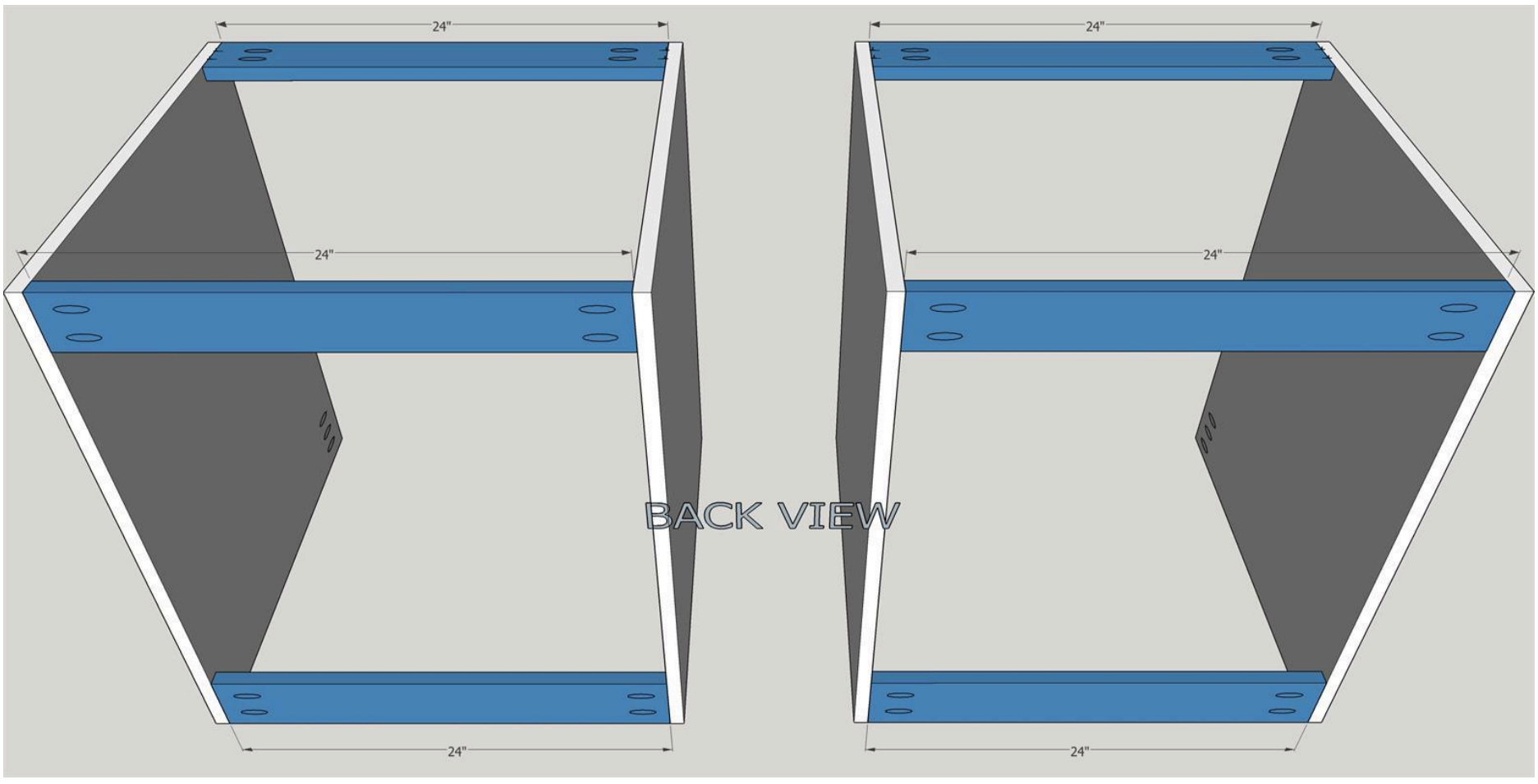
1 Base Side Panels

Cut plywood to sizes indicated on the diagram, and drill pocket holes in the locations indicated. The pocket holes closest to the bottom should be drilled within 3.5" of the bottom of the plywood board.



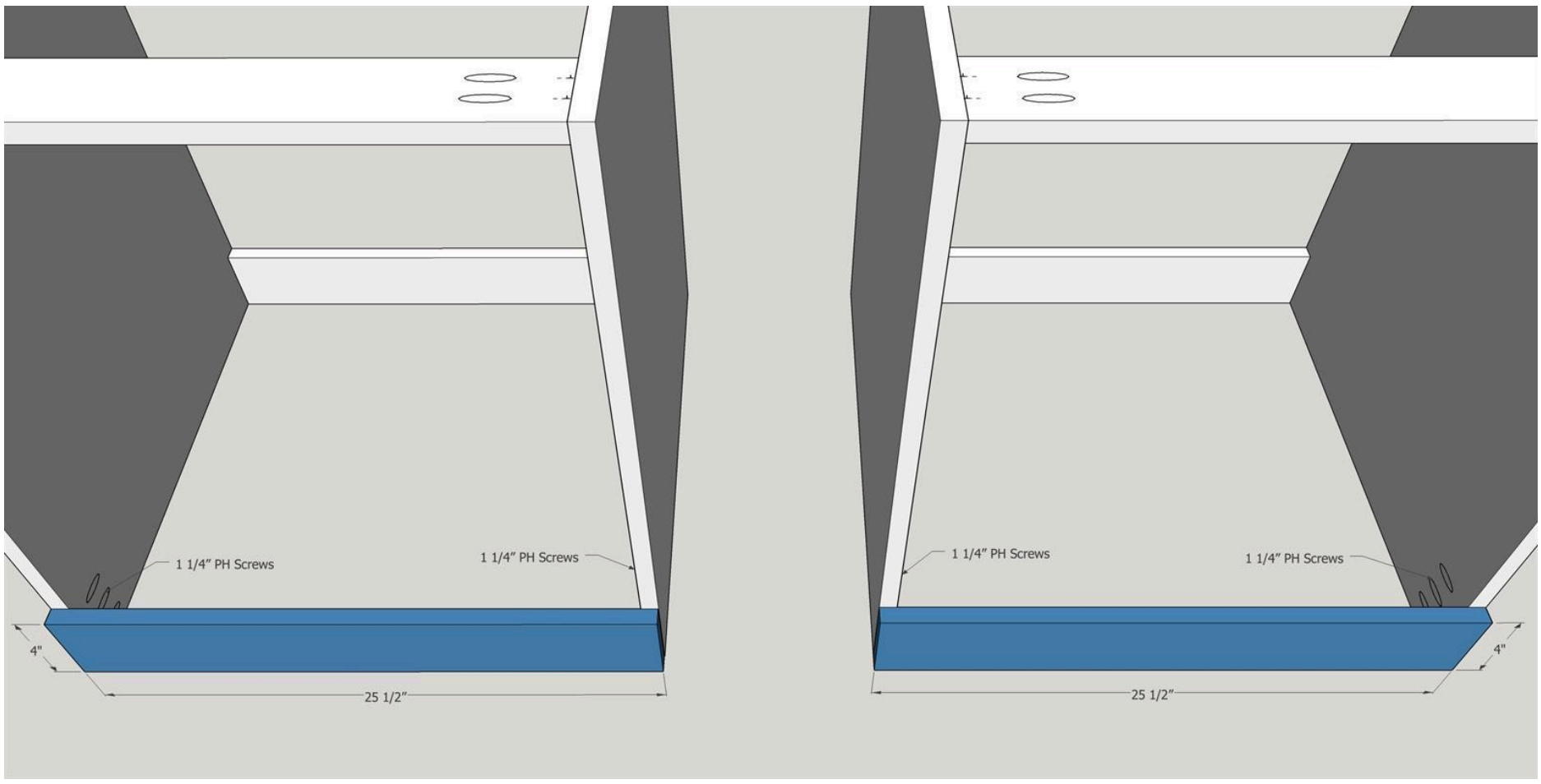
2 Connect Side Panels

The pocket holes on the BASE SIDE PANELS should face what will eventually be the front of the desk. Create two separate cabinet bases by connecting the BASE SIDE PANELS using the LOWER BACK SPAN FRAME SUPPORTS and TOP FRAME SPAN SUPPORTS with wood glue and 1 1/4" pocket hole screws. The TOP FRAME SPAN SUPPORTS closest to the front of the desk should be oriented so that they are flat along the top of the BASE SIDE PANELS. The pocket holes on the back span supports should face towards the back.



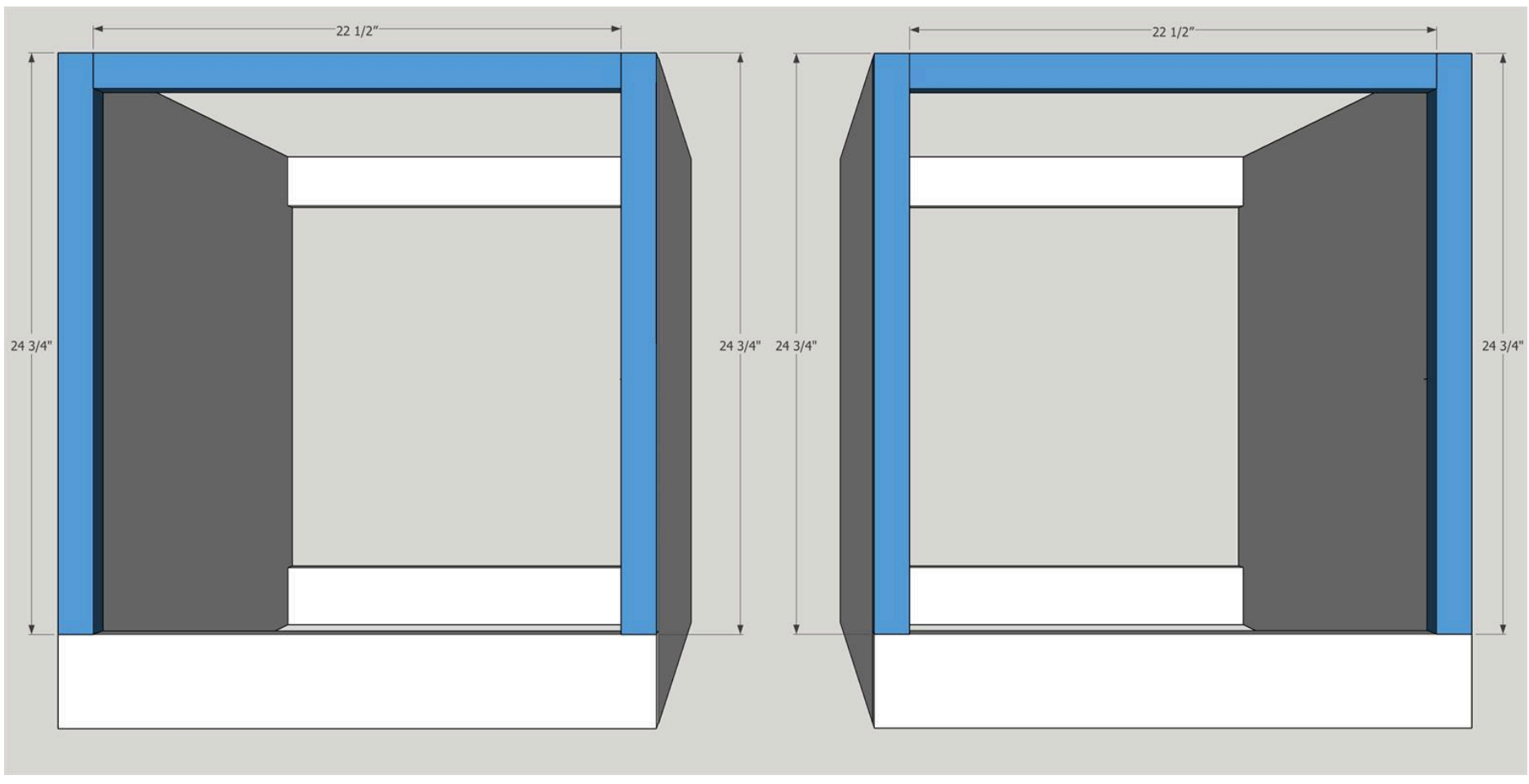
3 Front Base Span

Attach the FRONT BASE FRAME SPAN using wood glue and 1 1/4" pocket hole screws from inside the cabinet box.



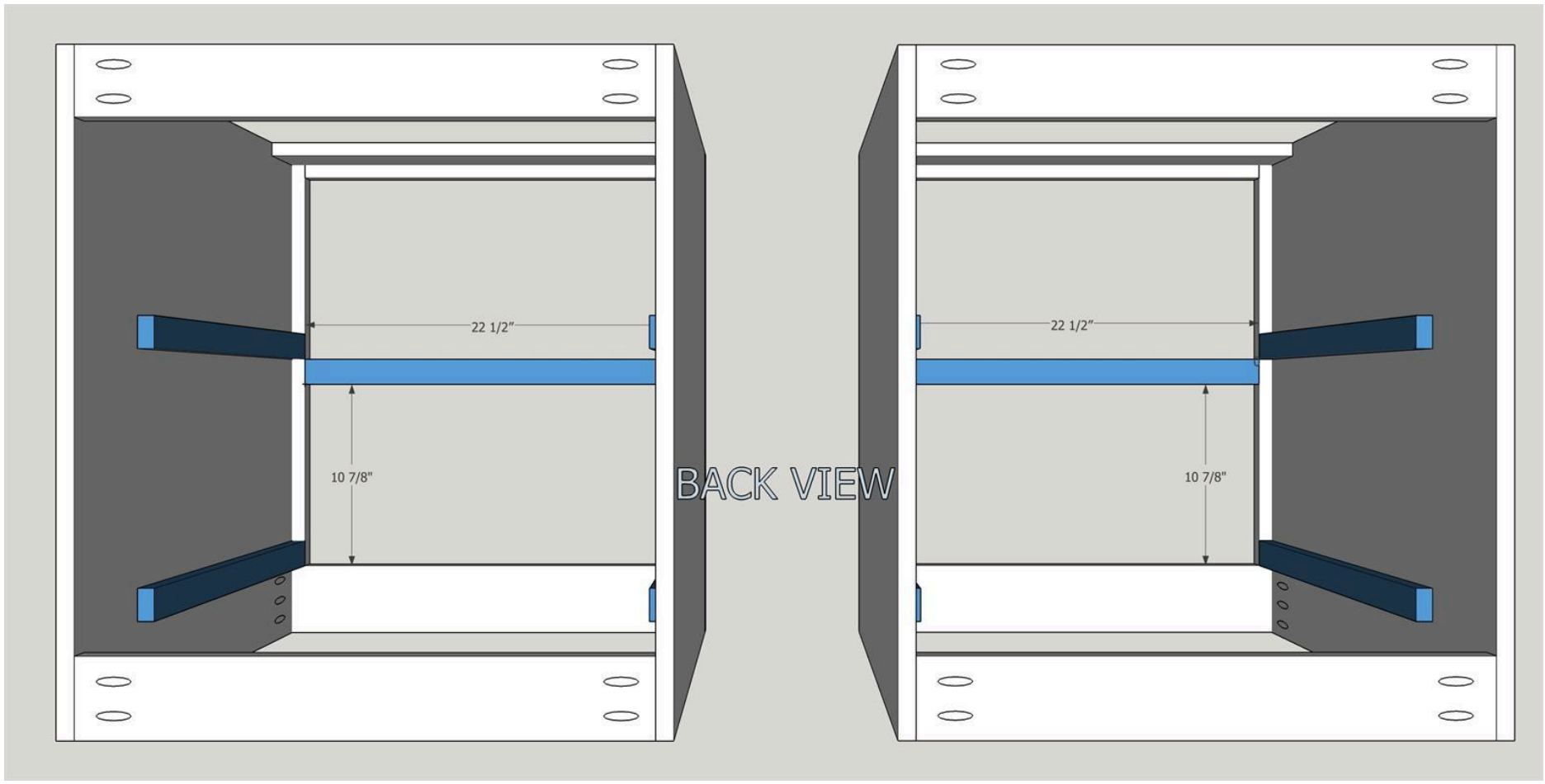
4 Base Cabinet Face Trim

Add the VERTICAL CABINET FACE FRAME trim to each of the cabinets using wood glue and 1 1/4" brad nails. Each face trim piece should line up flush with the outside edge of the base cabinet side panels. Then add one HORIZONTAL CABINET FACE FRAME trim piece flush with the top of the BASE SIDE PANELS. Secure with wood glue and 1 1/4" brad nails.



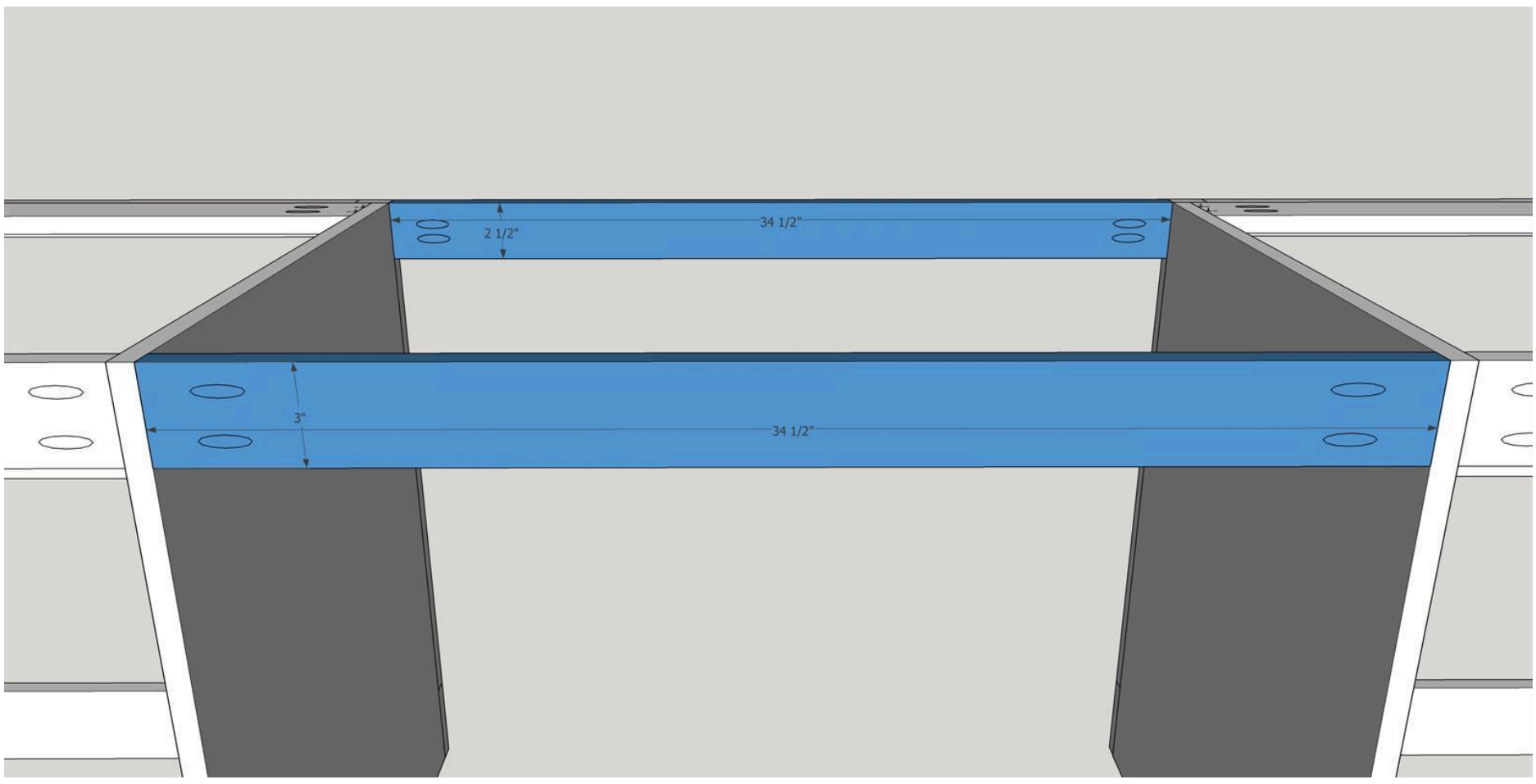
5 Cross Trim & Drawer Slide Rails

Install the other two HORIZONTAL CABINET FACE FRAME with pocket holes facing in at the location on indicated on the diagram. Attach with wood glue and 1 1/4" pocket hole screws. Attach the DRAWER SLIDE SUPPORTS using a Kreg Drawer Slide Jig! (This thing is so handy!). Apply some glue and brad nails to hold the rails in place.



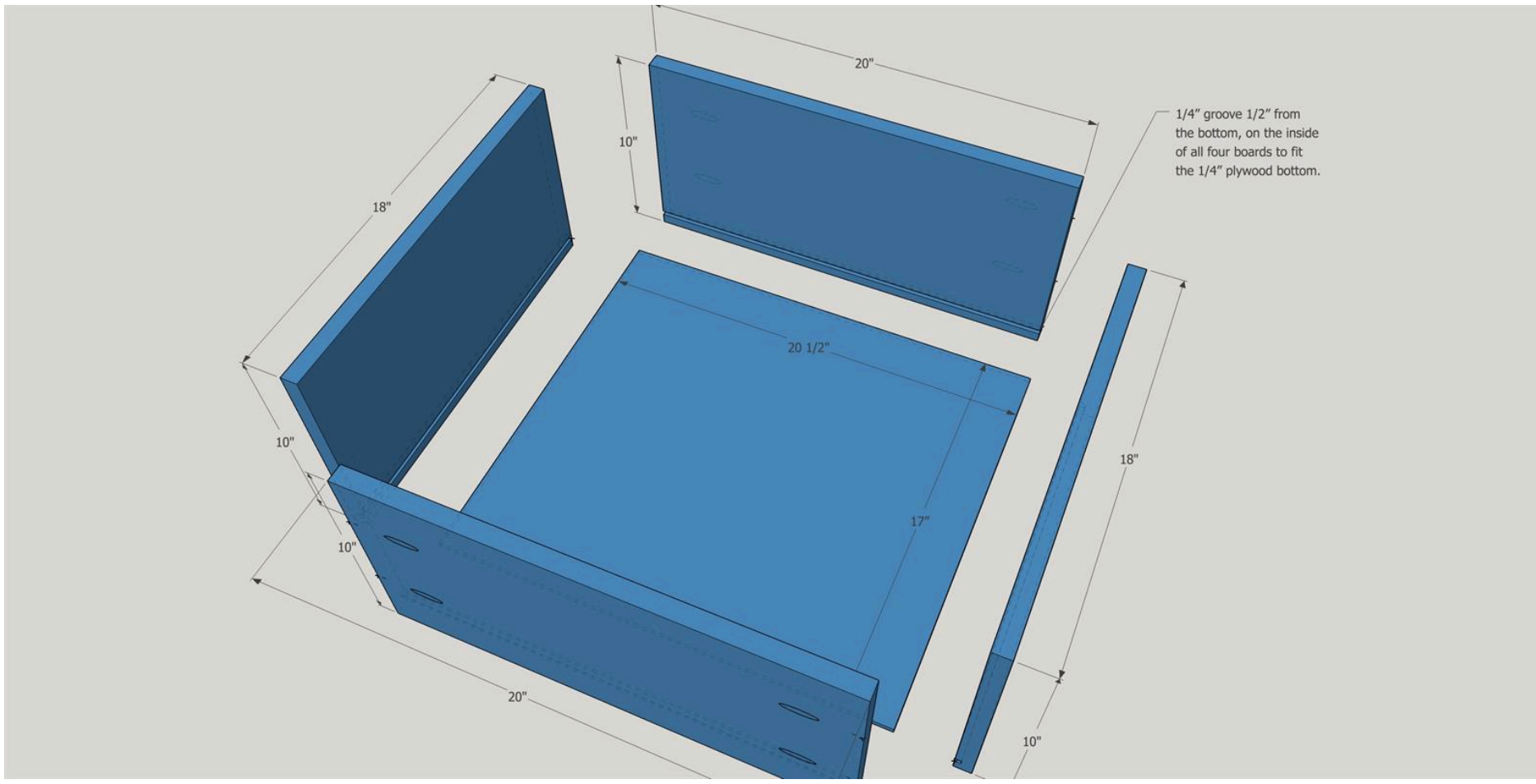
6 Attach Base Cabinets Together

Attach base cabinets together at with the using the FRONT & BACK CABINET CONNECTION pieces with wood glue and 1 1/4" pocket hole screws. All pocket holes should face toward the back of the desk.



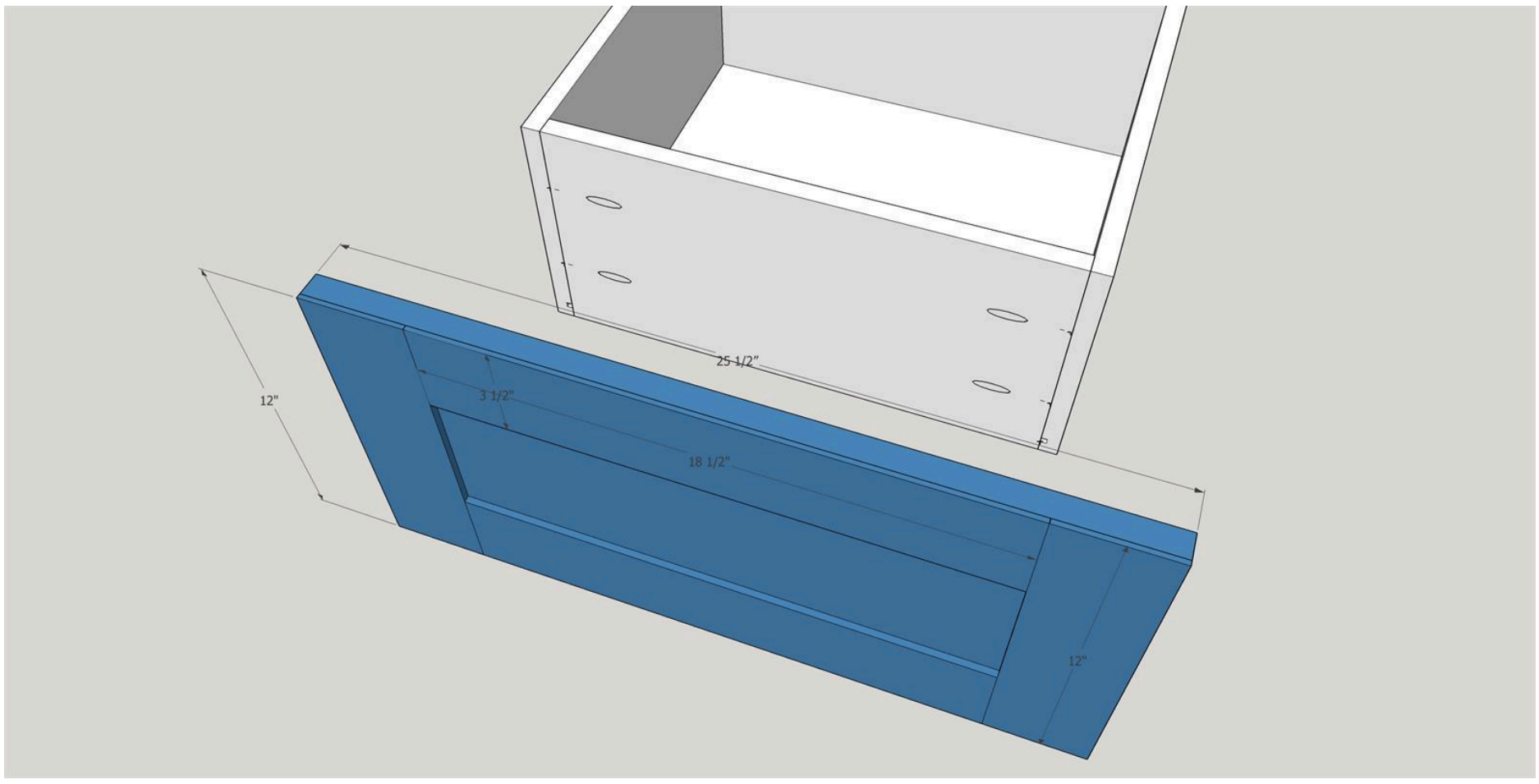
7 Build Four Drawer Boxes

Build four of these drawer boxes. You can use a dado blade on your table saw to cut 1/4" grooves for the drawer bases to fit into. If you don't have a dado blade, you can also use your regular table saw blade and make a slight adjustment to the blade on the second cut to create a 1/4" groove. You can also opt to forego the grooves and just make the DRAWER BASE INSERTS 18" x 21 1/2" and glue and nail them to the bottom. When assembling the box, the pocket holes on the DRAWER BOX FRONTS & BACKS should face out the front and back and not be visible on the inside of the box. Attach with wood glue and 1 1/4" pocket hole screws.



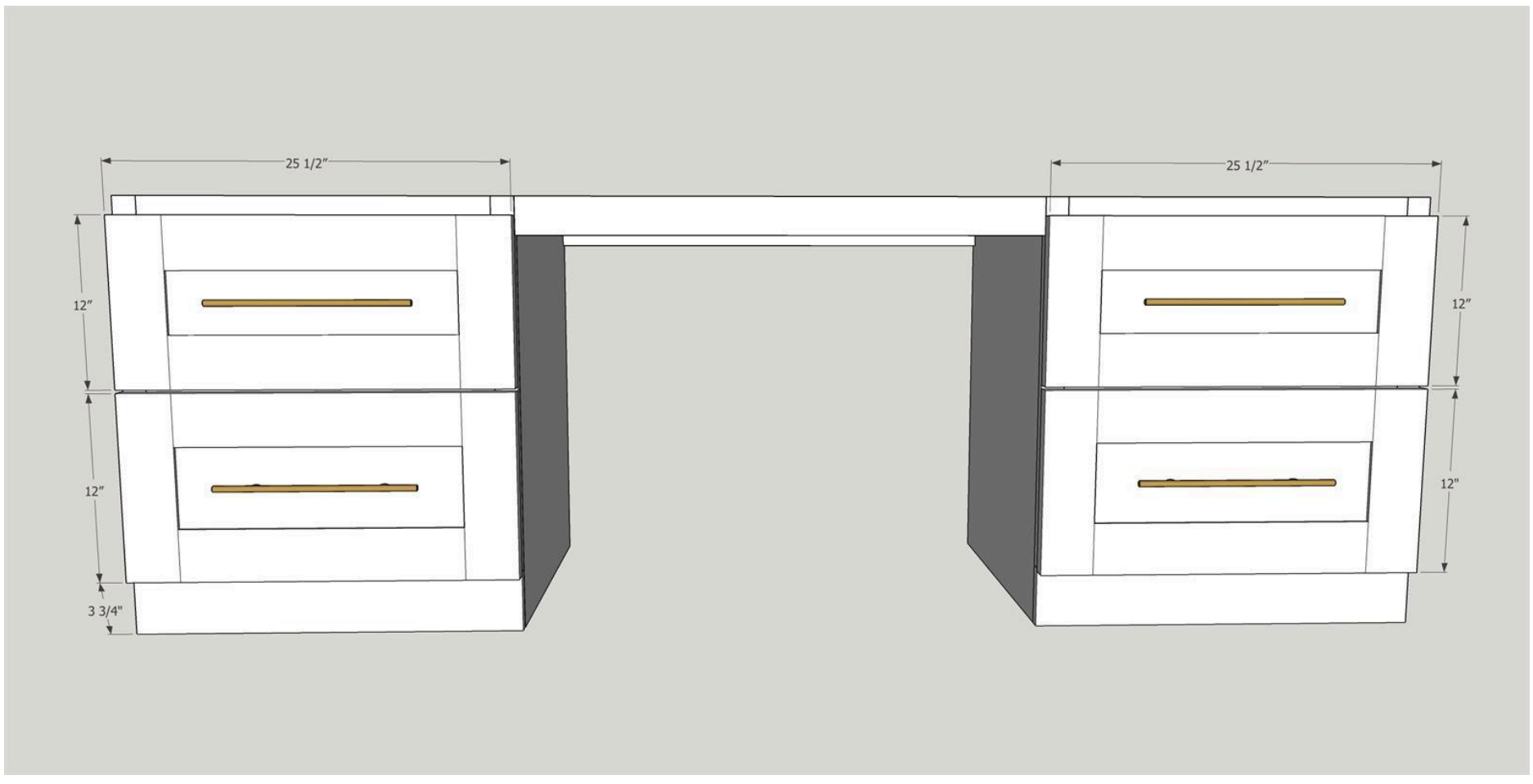
8 Build Four Drawer Fronts

Cut 4 - 24x12" drawer fronts from 3/4" quality plywood. Create the appearance of a shaker cabinet by gluing and attaching the DRAWER FACE TRIM VERTICAL & HORIZONTAL pieces. This is 1/4" project panel, not plywood (poplar, maple, or oak pieces available at your local hardware store). Clamp in place or use 3/4" brad nails to secure it to the 3/4" plywood or pine shelving. To make the plywood edges look great when you will be painting the finished product, use some spackle. Watch this Kreg video for a tutorial! https://www.youtube.com/watch?v=_WTlwWZFPRs



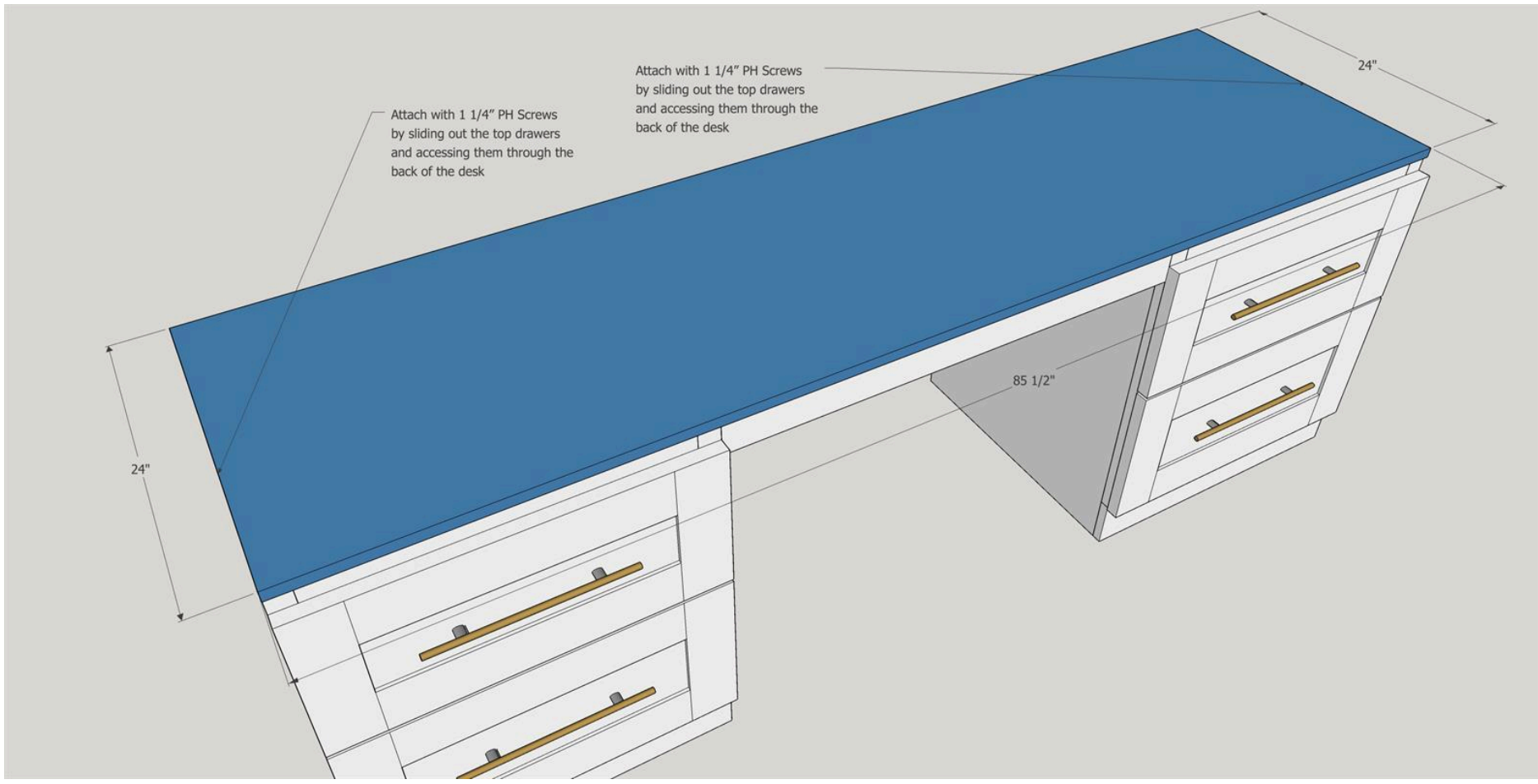
9 Attach Faces

Attach drawer fronts to the front of the drawer boxes by drilling from the inside of the drawer with 1 1/4" wood screws. Make sure that the bottom drawer is approximately 3 3/4" from the bottom of the cabinet. There should only be approximately 1/8" between the top and bottom drawers. (A little tip...I use double sided mounting tape to get my drawers held in place before I screw them in because it's really hard to get clamps to do the job!).



10 Attach Desktop

Prestain DESKTOP. Place desktop on top of the cabinets. Extend the top front drawers out so that you can access the pocket holes you drilled in step 1 and use 1 1/4" pocket hole screws to secure the top to the base. These cabinets are heavy so do not lift either side of the desk high off the ground. If you need to move it and it requires lifting, please disassemble the top from the cabinets and the cabinets from each other.



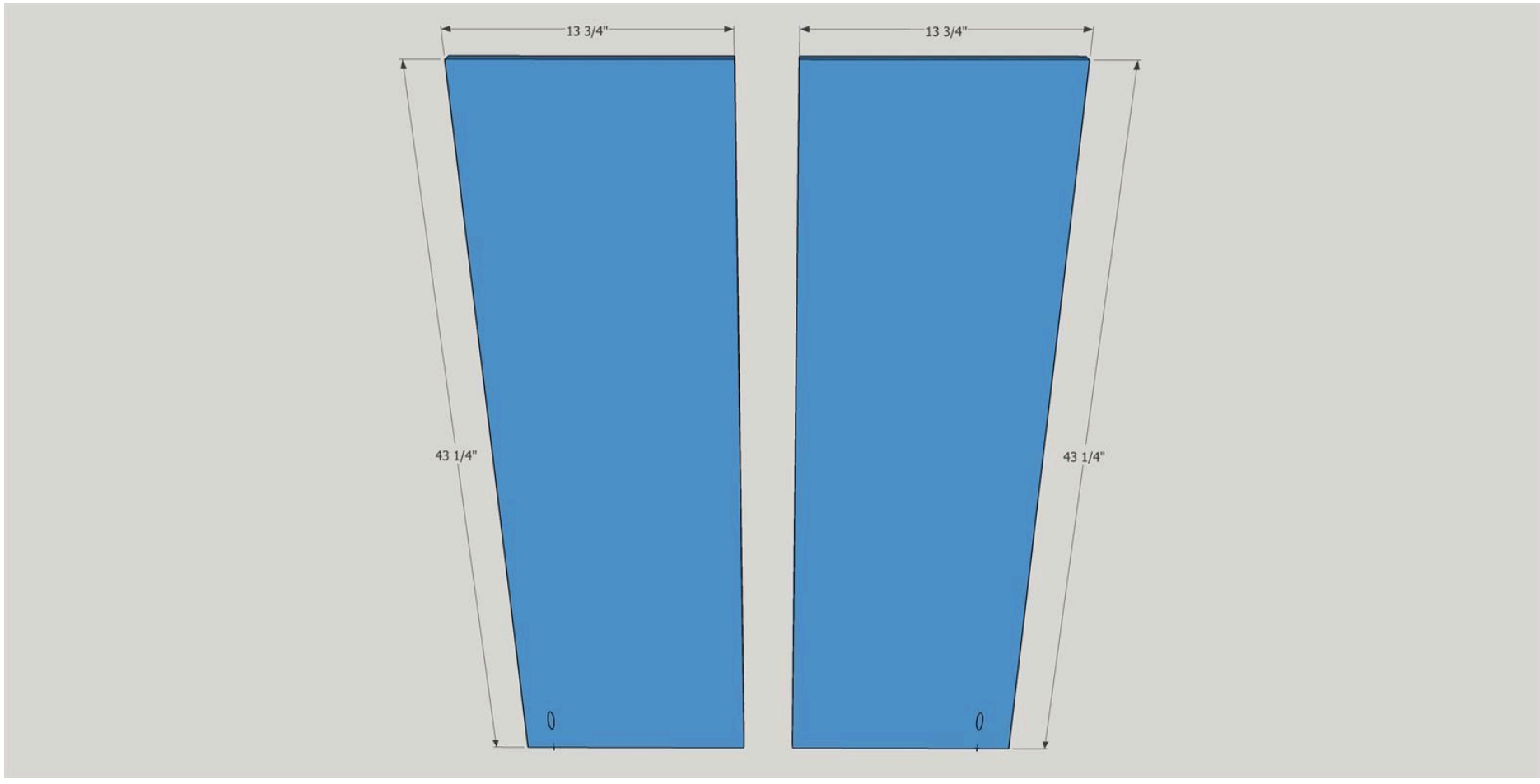
11 Attach Desktop Trim

Attach the DESKTOP FACE trim to the front and DESKTOP END TRIM to both sides, with 45-degree angles at both of the front corners. (See diagram)



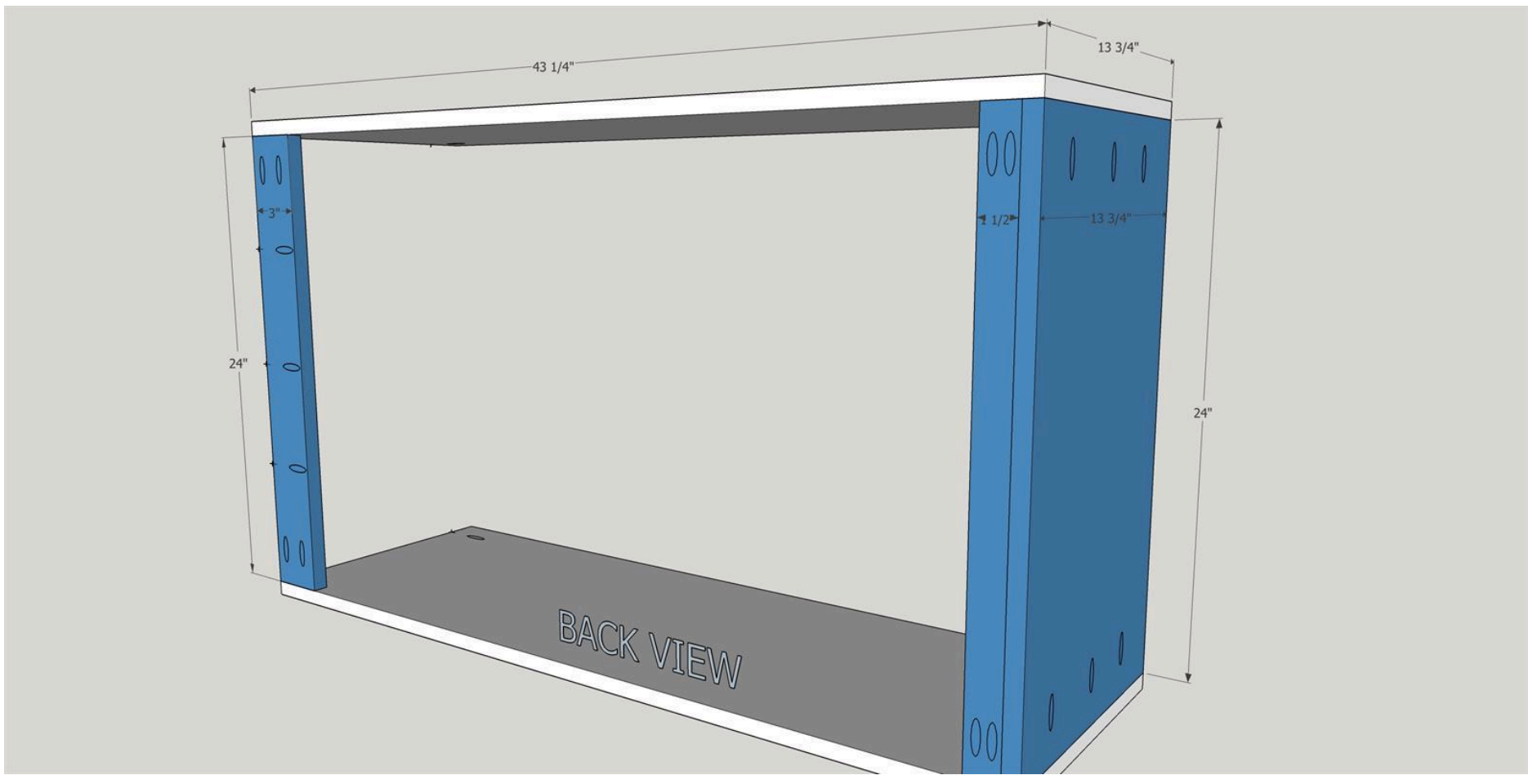
12 Shelving Unit - Side Pieces

Drill a pocket hole on each SHELVING UNIT - SIDE PANEL as indicated on the diagram.



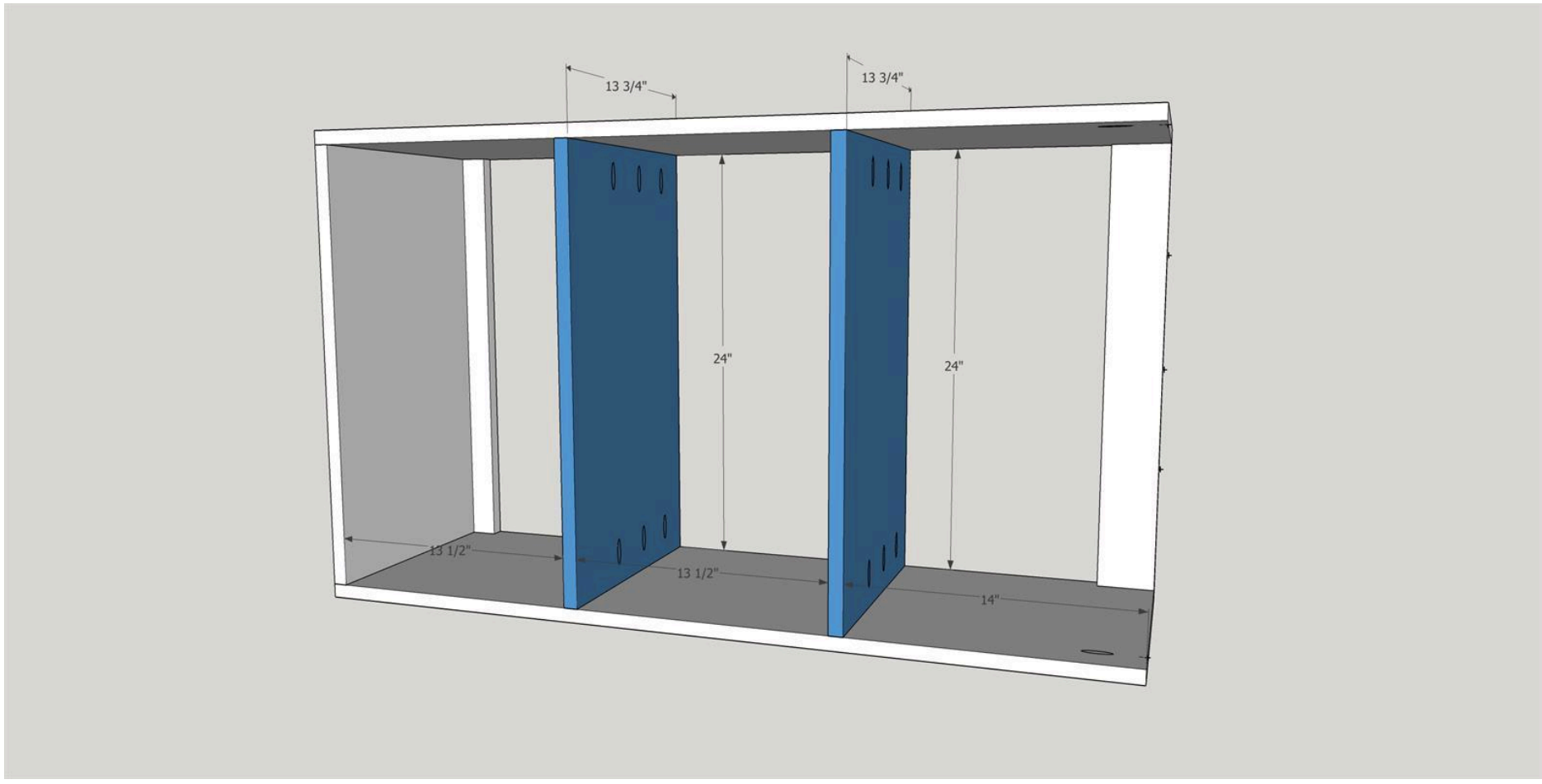
13 Shelving Unit - Span Attachments

Take note of the additional three pocket holes in the BOTTOM BACK SPAN. You will need these to attach the finished shelving unit to the desktop. Lay one SHELVING UNIT - SIDE PIECE on its side and attach the TOP PANEL, TOP BACK SPAN, and BOTTOM BACK SPAN as shown in the diagram with wood glue and 1 1/4" pocket hole screws. Then attach the other SIDE PIECE to create the box.



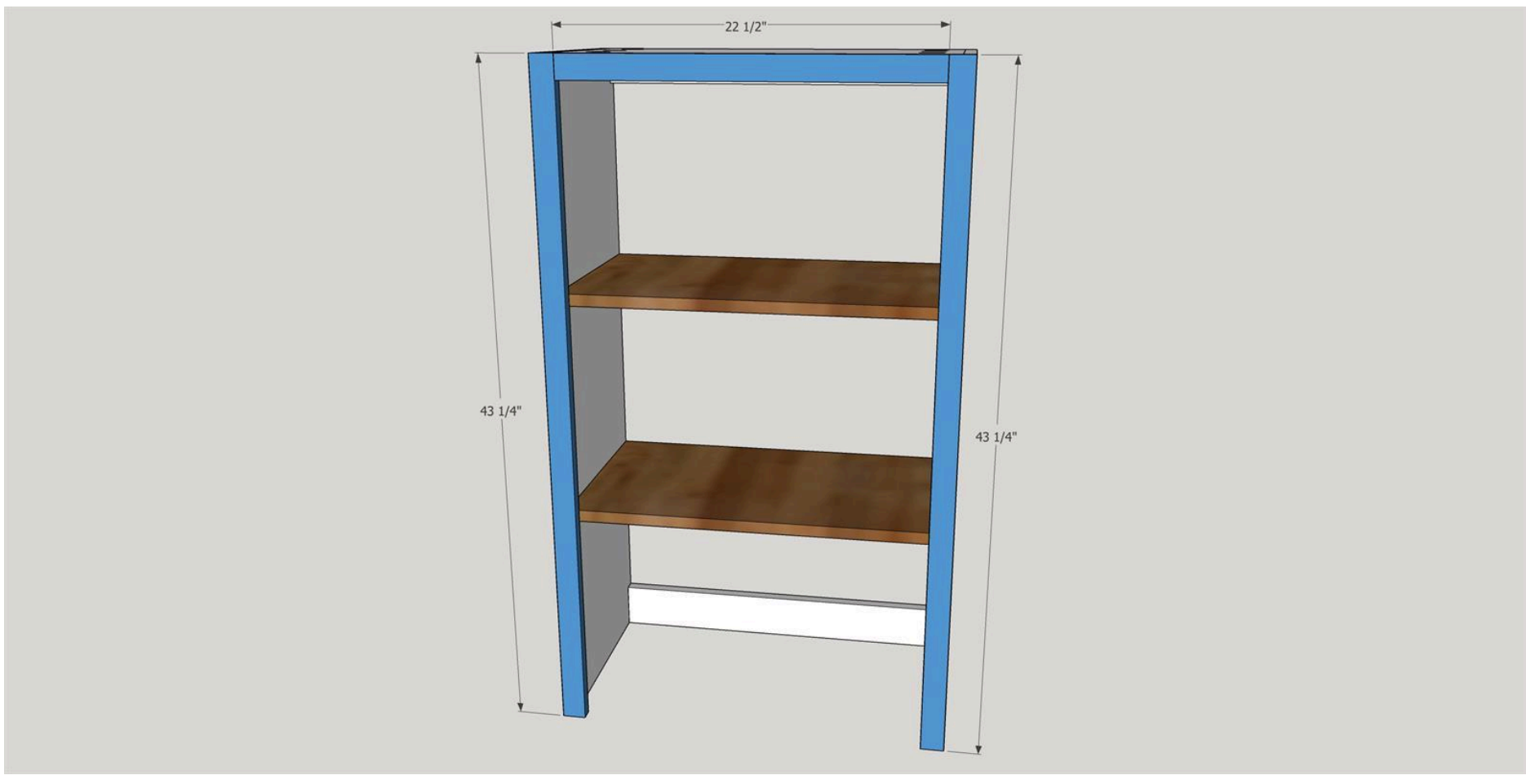
14 Shelving Unit - Shelves

Prestain SHELVING UNIT - SHELVES. Attach shelves using six pocket holes on the underside of each shelf. Use wood glue and 1 1/4" pocket hole screws. You can use the measurements between the shelves that are indicated on the diagram, or you can customize the distance between shelves to suit your needs.



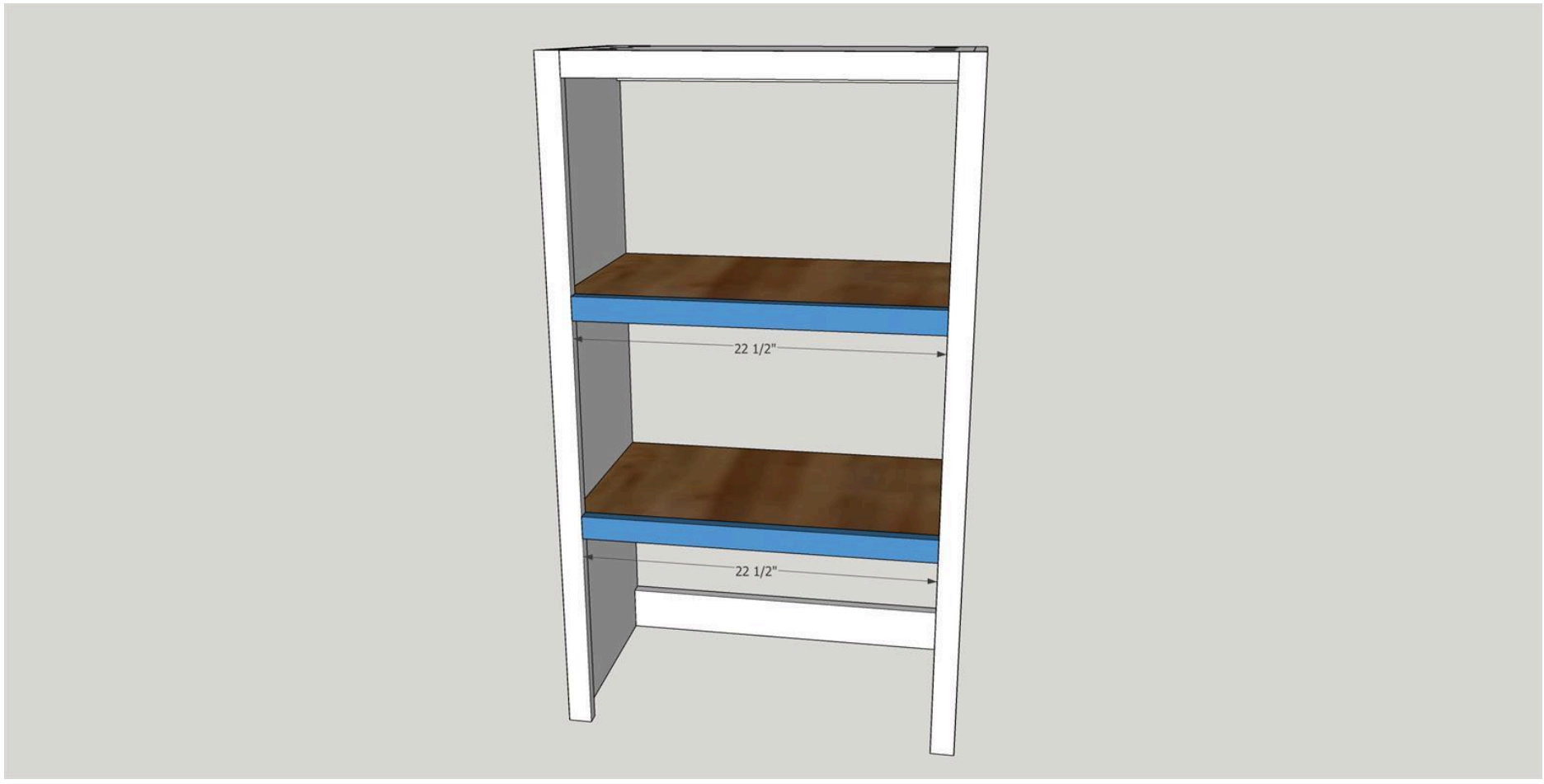
15 Shelving Unit - Trim

Attach the SHELVING UNIT - FACE FRAME & UPPER FRAME HORIZONTAL to the outside front of the shelving unit with wood glue and brad nails.



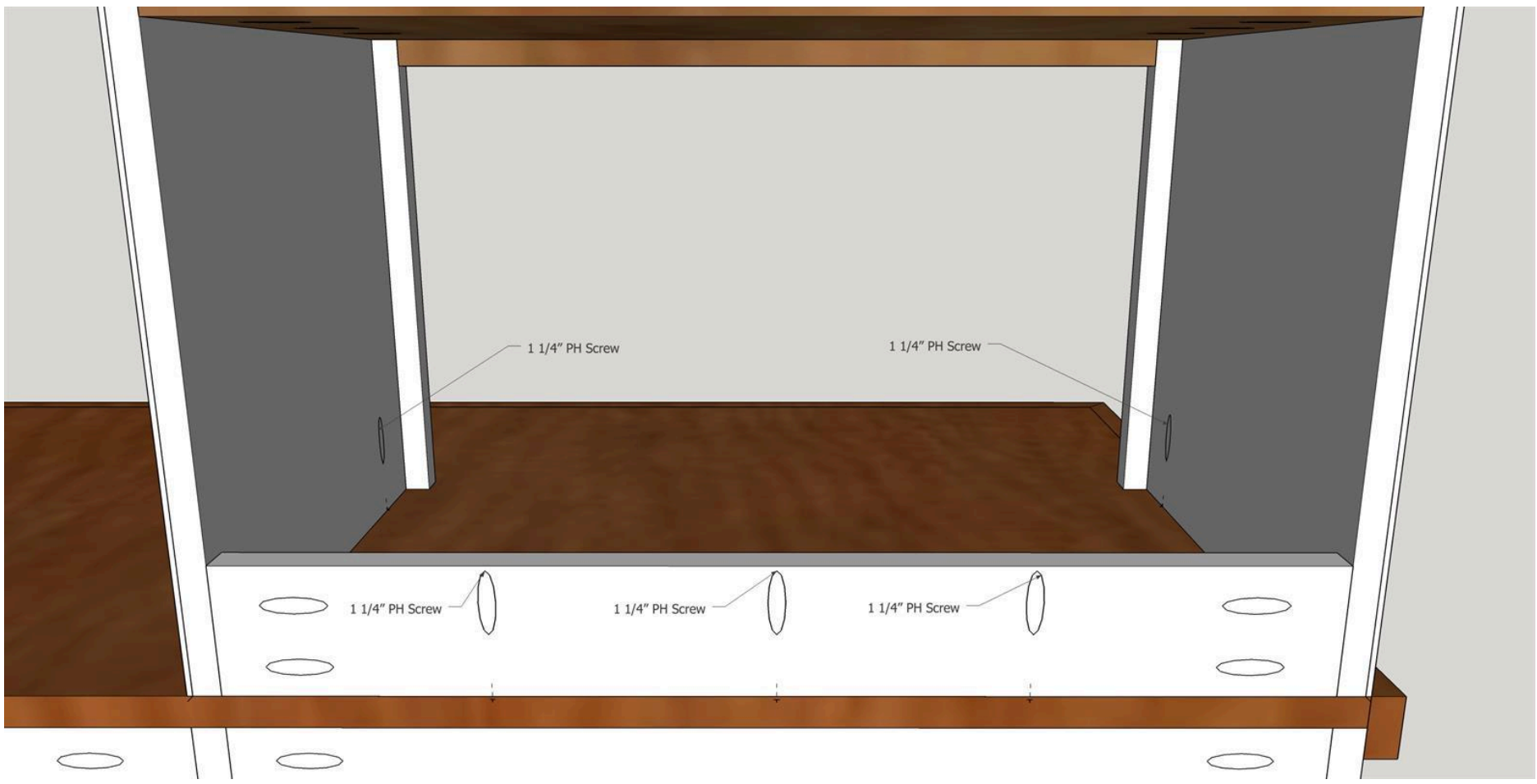
16 Shelving Unit - Shelf Trim

Prestain pieces. Attach SHELVING UNIT - SHELF FACE TRIM to the fronts of the shelves with wood glue and brad nails.



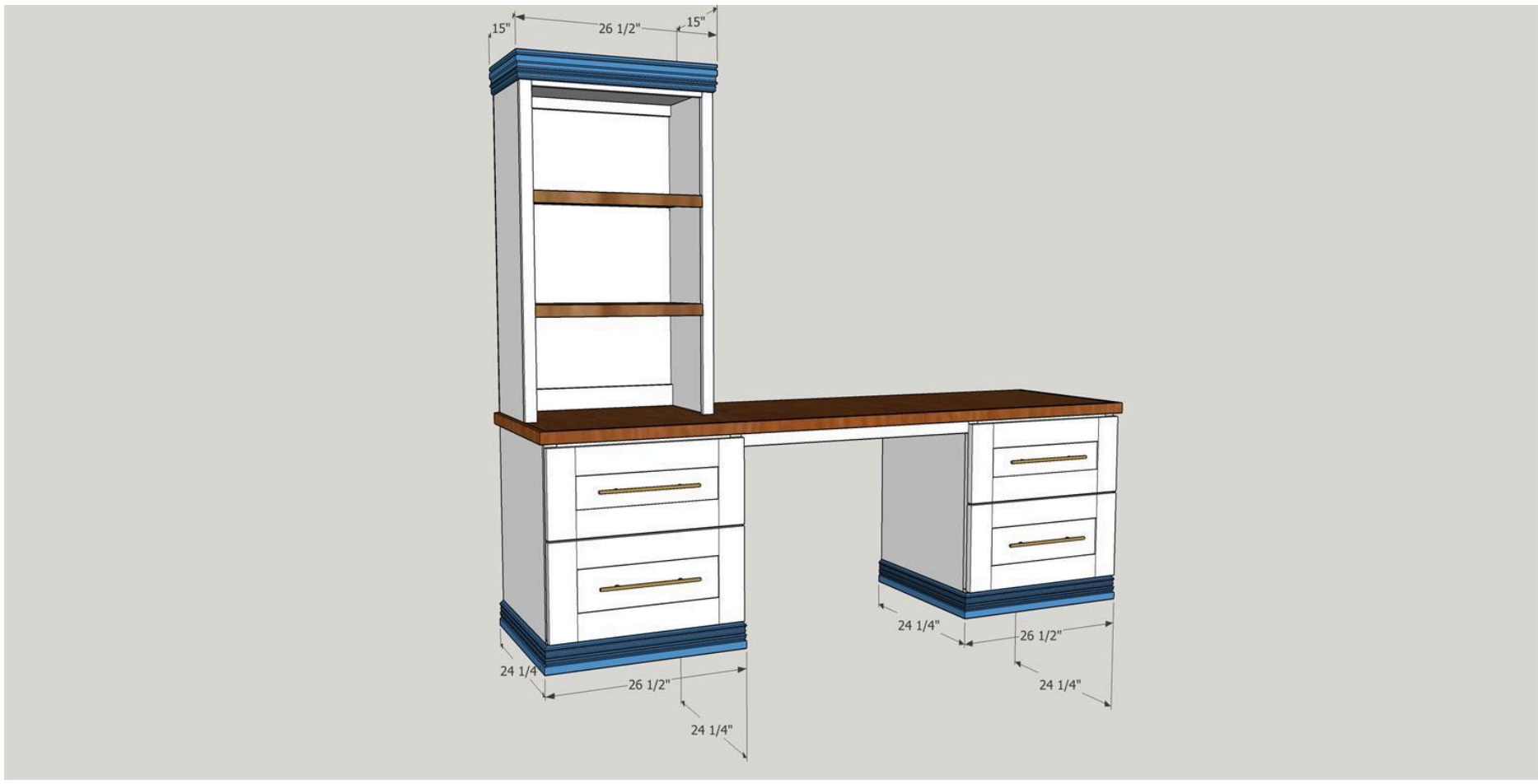
17 Attach Shelving Unit to Base Desk

Attach shelving unit to the base using the pocket holes at the back of the bottom piece on the shelving unit and the two pocket holes on the inside front of the shelving unit.



18 Base & Upper Trim

Add decorative trim of your choice to the bottom and top. Bottom trim should be no more than 3 1/2" to fit under the lower drawer. For this project we used a 3 1/2" baseboard trim, and a casing/baseboard trim that we turned upside-down for the upper trim.



19 Finishing

Customize with your choice of paint or stain colors. Add the hardware of your choice and make the installation easier and more precise with the Kreg Hardware Jig. Anchor the SHELVING UNIT to the wall through the TOP BACK SPAN into a stud if possible using 2 1/2" wood screws for safety. NOTE: This desk is very heavy and large and it is not advised that you try to lift it. You should slide it whenever possible or disassemble the SHELVING UNIT from the base, and the two base cabinets from each other.



20 Install Drawer Slides & Boxes

Install Drawer Slides & Boxes using the Kreg Drawer Slide Jig. Use 18" Ball Bearing full extension slides available at any hardware store. Don't skimp on the slides. These drawers are fairly heavy even when they're empty and you want to make sure they hold up! Use slide manufacturers directions for detailed instructions on how to install.
https://www.homedepot.com/p/18-in-Full-Extension-Ball-Bearing-Side-Mount-Drawer-Slide-39115018/300243512?MERCH=REC-_-PIPHorizontal1_rr-_-205417392-_-300243512-_-N



21 NOTE ABOUT DRAWER BOXES

These boxes are built to accommodate slides that require the drawer to be 1" narrower than the opening of the cabinet. Please see drawer slide manufacturers instructions and make any adjustments necessary.