

BIKE 'n' BIN SHED

DESIGN: REAL CEDAR ORIGINAL

A STYLISH & VERSATILE CEDAR STORAGE SHED

This multi-purpose project is very versatile. With latched doors, it can be used as an animal-proof organizer for recycling bins, compost bins etc., keeping small critters like raccoons from rummaging through your garbage.

And because the plans call for Western Red Cedar, an aromatic wood, this bin is going to cut down on odors. Another option is to use this shed for securely storing sporting equipment. Thanks to the bi-fold door system that opens all the way up, you can easily access all your gear.

It's a compact structure that can standalone in your backyard or live in your garage, taking up very little space. Either way, this shed is going to last you a very long time. That's because it's made with Western Red Cedar, which is naturally resistant to rot, decay and insects.

Real Cedar is also every DIYer's best friend. It lays straight, holds fasteners exceptionally well and the tools love it. For added warmth & texture, choose a knotty grade of Real Cedar (Architect Knotty, Select Knotty). For a crisp, clean look, ask for Architect Clear or 'A' & better.

MATERIALS & CUTS

Part	Description	Finished Size			Nominal Size	Material	Quantity
		T	W	L			
A	Base Front and Back	1-1/2"	3-1/2"	82-3/8"	2 x 4	Pressure Treated lumber or Western Red Cedar	2
B	Base Cross Members	1-1/2"	3-1/2"	31-1/4"	2 x 4	Pressure Treated lumber or Western Red Cedar	4
C	Side Frame (bottom)	1-1/2"	3-1/2"	39-1/4"	2 x 4	Select Knotty Western Red Cedar	2
D	Side Frame (top)	1-1/2"	3-1/2"	41-1/32"	2 x 4	Select Knotty Western Red Cedar	2
E	Side Frame (back)	1-1/2"	3-1/2"	45-1/8"	2 x 4	Select Knotty Western Red Cedar	2
F	Side Frame (front)	1-1/2"	3-1/2"	55-1/4"	2 x 4	Select Knotty Western Red Cedar	2
G	Floor	3/4"	5-1/2"	82-3/8"	1 x 6	Select Knotty Western Red Cedar	7
H	Side Siding	11/16"	5"	39-1/4"	T&G 1 x 5	Select Knotty Western Red Cedar	23
I	Back Frame	1-1/2"	1-1/2"	75-3/8"	2 x 2	Select Knotty Western Red Cedar	2
J	Back Frame (brace)	1-1/2"	3-1/2"	44-1/2"	2 x 4	Select Knotty Western Red Cedar	1
K	Back Siding	11/16"	5"	82-3/8"	T&G 1 x 5	Select Knotty Western Red Cedar	10
L	Roof Cross Brace	1-1/2"	3-1/2"	82-3/8"	2 x 4	Select Knotty Western Red Cedar	3
M	Roof Trim	1-1/2"	3-1/2"	47-1/4"	2 x 4	Select Knotty Western Red Cedar	2
N	Roof Trim	1-1/2"	3-1/2"	86-3/4"	2 x 4	Select Knotty Western Red Cedar	1
O	Roof Trim	3/4"	2-1/2"	48"	1 x 3	Select Knotty Western Red Cedar	2
P	Roof Trim	3/4"	2-1/2"	88-1/4"	1 x 3	Select Knotty Western Red Cedar	1
Q	Side Wall Front Cover	3/4"	5-1/2"	59"	1 x 6	Select Knotty Western Red Cedar	2
R	Door Panel Frame (end)	1-1/2"	3-1/2"	15-9/16"	2 x 4	Select Knotty Western Red Cedar	8
S	Door Panel Frame (side)	1-1/2"	1-1/2"	54-1/2"	2 x 2	Select Knotty Western Red Cedar	8
T	Door Siding	11/16"	5"	75-3/4"	T&G 1 x 5	Select Knotty Western Red Cedar	12

SHOPPING LIST

All lumber should be Select Knotty Grade, Kiln Dried (KD) and smooth on all four sides (S4S). Siding can be rough or smooth.

	Description	Nominal Size x Length	Material	Quantity
Wood	Pressure Treated Dimensional Lumber	2 x 4 x 8'	Pressure Treated lumber or Western Red Cedar	6
Wood	WRC Dimensional Lumber	2 x 4 x 8'	Knotty Western Red Cedar	14
Wood	WRC Dimensional Lumber	2 x 2 x 8'	Knotty Western Red Cedar	10
Wood	WRC Dimensional Lumber	1 x 6 x 8'	Knotty Western Red Cedar	7
Wood	WRC Dimensional Lumber	1 x 6 x 6'	Knotty Western Red Cedar	2
Wood	WRC Dimensional Lumber	1 x 3 x 8'	Knotty Western Red Cedar	3
Wood	WRC T&G V-Joint EV1S	T&G 1 x 5 x 8'	Knotty Western Red Cedar	34
Roofing	Corrugated Polycarbonate Roofing Panel	24" x 96"	Clear Polycarbonate	2
Roofing	Closure Strip for Roofing Panels	36"	Plastic	9
Flashing	Deck Flashing with Non-return Drip Edge	4 x 2-1/2 x 96"	Galvanized Metal	1
Flashing	Deck Flashing with Non-return Drip Edge	4 x 2-1/2 x 72"	Galvanized Metal	2
Hardware	Roofing Screws with Neoprene Washers	1-1/2"	Metal	14
Hardware	Galvanized Self-drilling Roofing Screws	1"	Galvanized Steel	45
Hardware	Decking Screws	3"	Stainless Steel	100
Hardware	Decking Screws	1-1/2"	Stainless Steel	104
Hardware	Gun Nails	1-1/2"	Galvanized	334
Hardware	Box Hinges (+ screws)	Standard Gate Size	Powder Coated Steel	8
Hardware	Cane Bolts (+ brackets & screws)	Standard Gate Size	Powder Coated Steel	2
Hardware	Sliding Bolt Gate Latch	Standard Gate Size	Powder Coated Steel	1

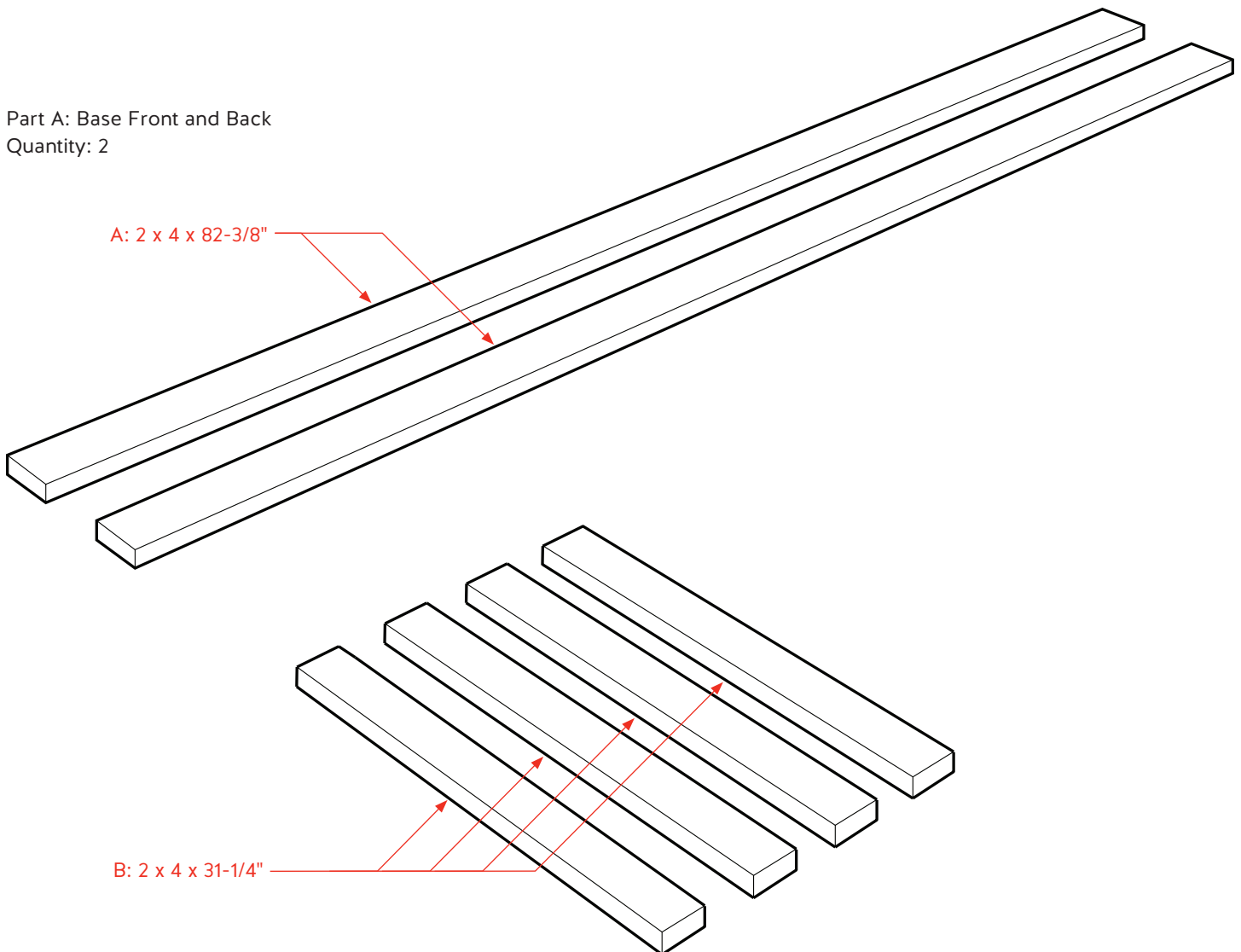
INSTALLATION PRO TIPS

1. For all outdoor work, you should use corrosion-resistant stainless steel or hot-dipped galvanized nails. Other fasteners and hardware such as bolts, screws and hinges should also be made from similar corrosion resistant materials.
2. You can let the cedar weather naturally (eventually turning a beautiful silvery patina), or you can choose to finish the structure—in which case, apply the finish to all six sides of the components before assembly.

STEP 1. CUT COMPONENTS

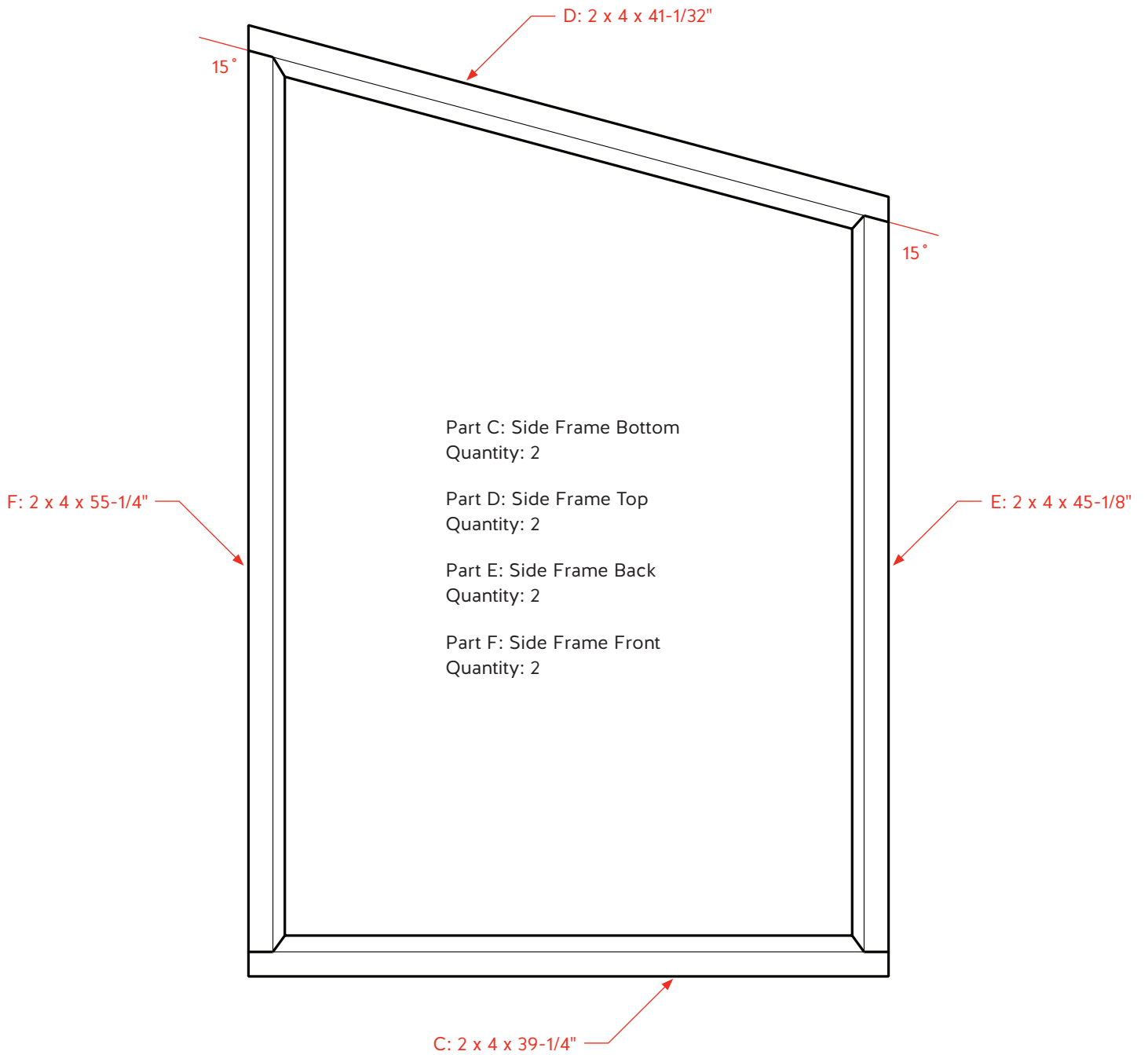
Inspect, measure and cut components to the specifications in the materials list, paying attention to any mitre or angle cuts in these drawings. Do not pre-cut the siding for the doors or side walls as it should be trimmed after it is fastened in place.

You will need to pre-cut the siding for the back wall and the lowest piece for each side wall.



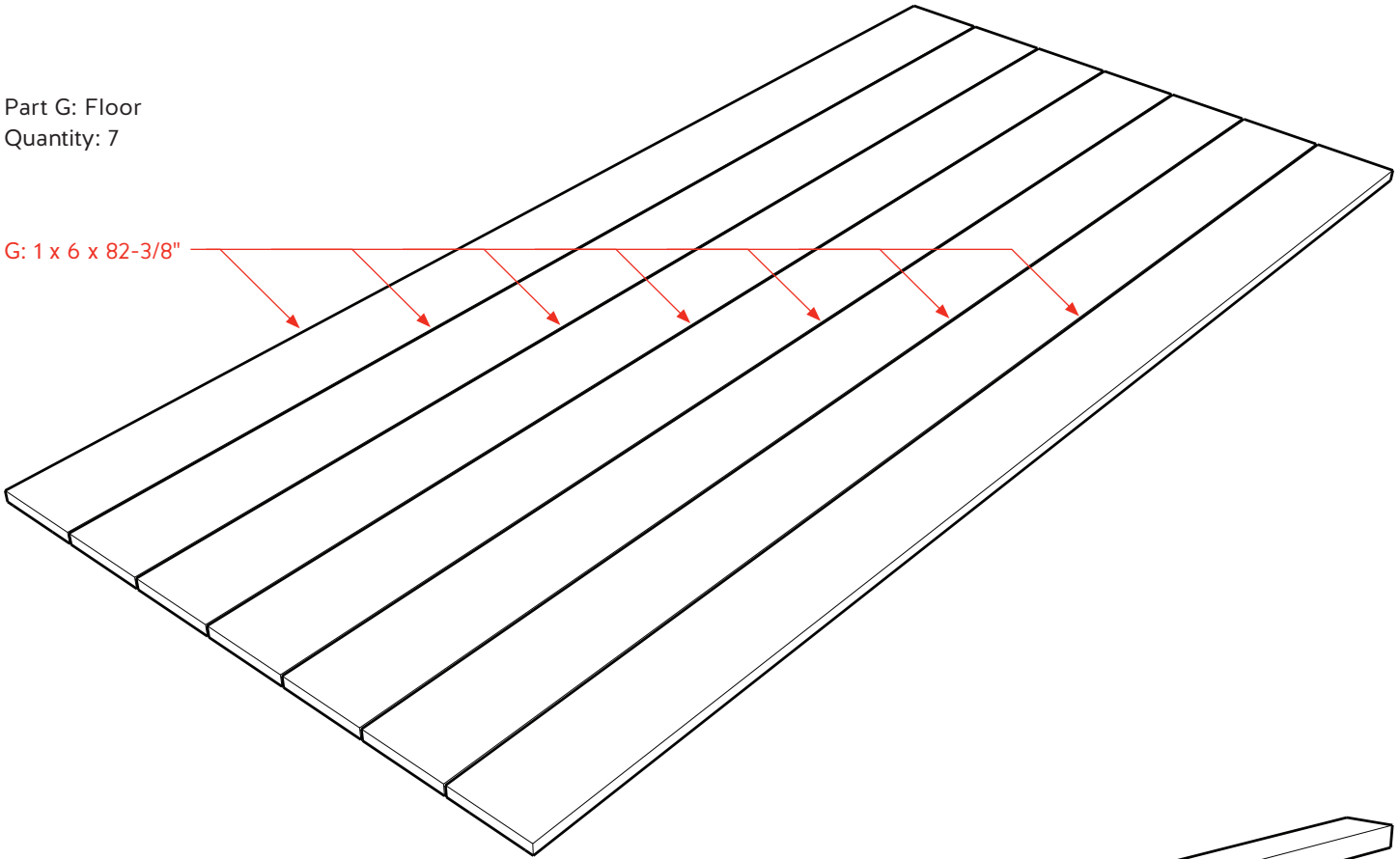
Part A: Base Front and Back
Quantity: 2

Part B: Base Cross Members
Quantity: 4



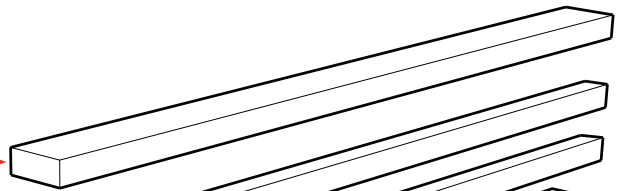
Part G: Floor
Quantity: 7

G: 1 x 6 x 82-3/8"



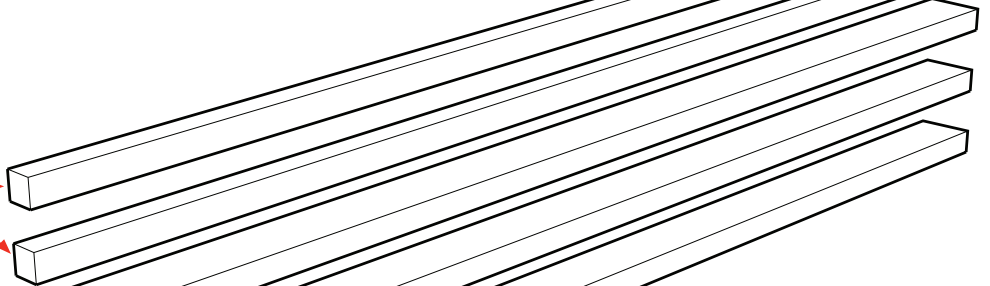
Part J: Back Frame Brace
Quantity: 1

J: 2 x 4 x 44-1/2"



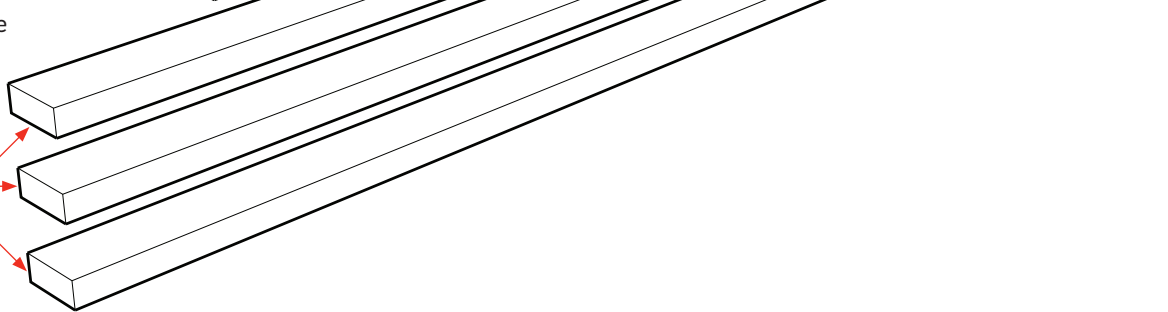
Part I: Back Frame
Quantity: 2

I: 2 x 4 x 75-3/8"



Part L: Roof Cross Brace
Quantity: 3

L: 2 x 4 x 82-3/8"



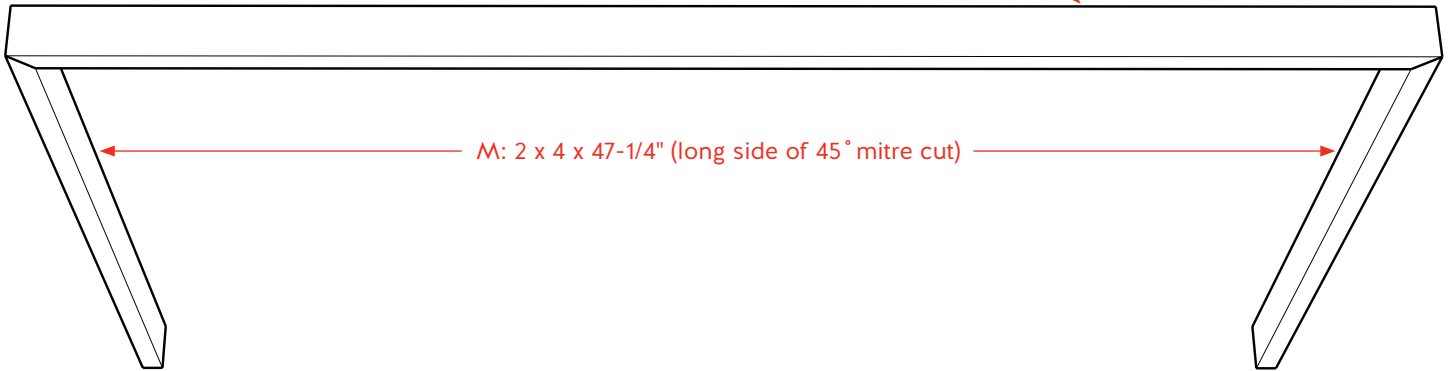
Part M: Roof Trim

Quantity: 2

Part N: Roof Trim

Quantity: 1

N: 2 x 4 x 86-3/4" (long side of 45° mitre cut)



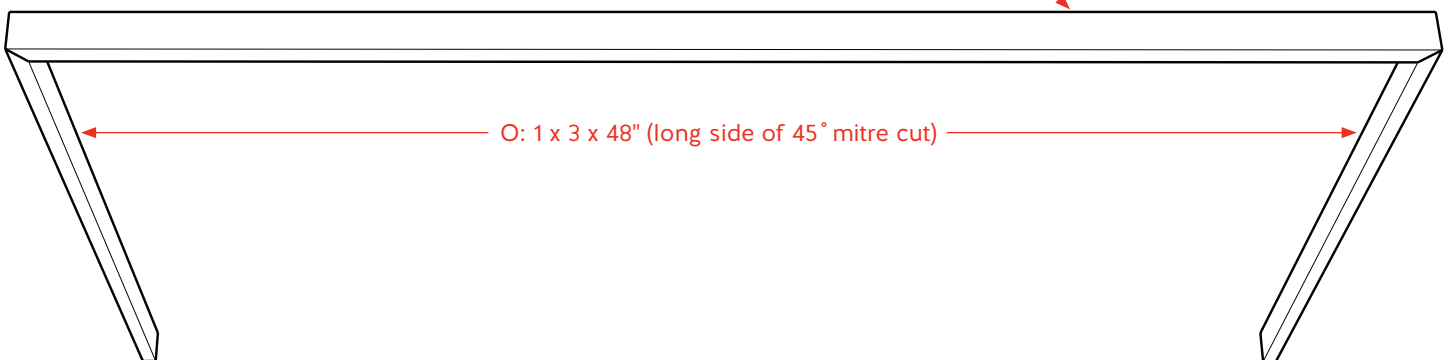
Part O: Roof Trim

Quantity: 2

Part P: Roof Trim

Quantity: 2

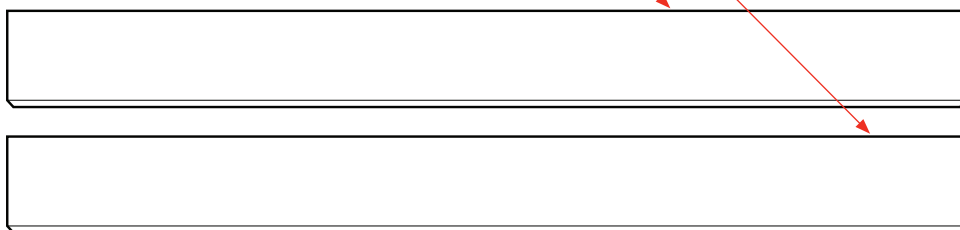
P: 1 x 3 x 88-1/4" (long side of 45° mitre cut)



Part Q: Side Wall Front Cover

Quantity: 2

Q: 1 x 6 x 59"

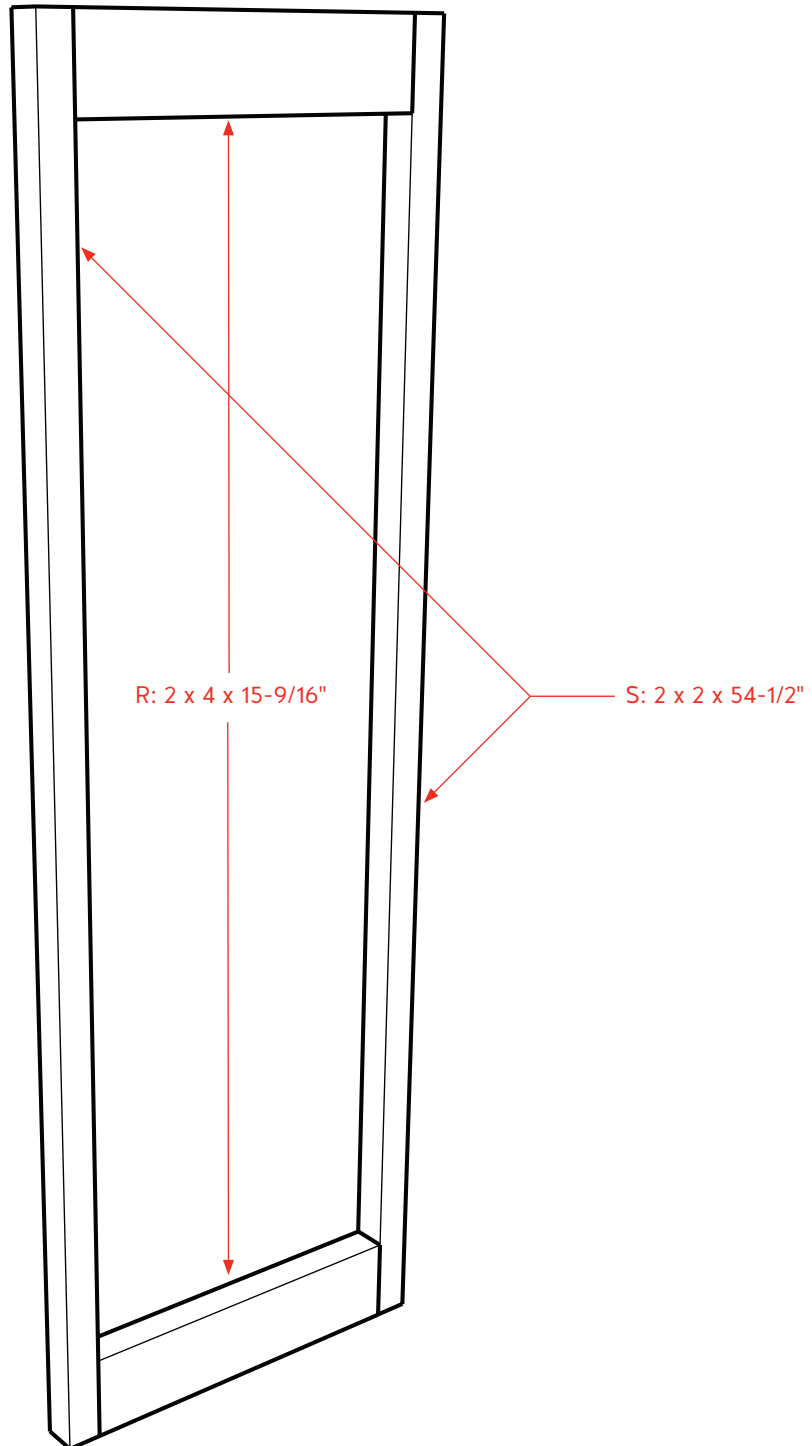


Part R: Door Panel Frame End

Quantity: 8

Part S: Door Panel Frame Side

Quantity: 8



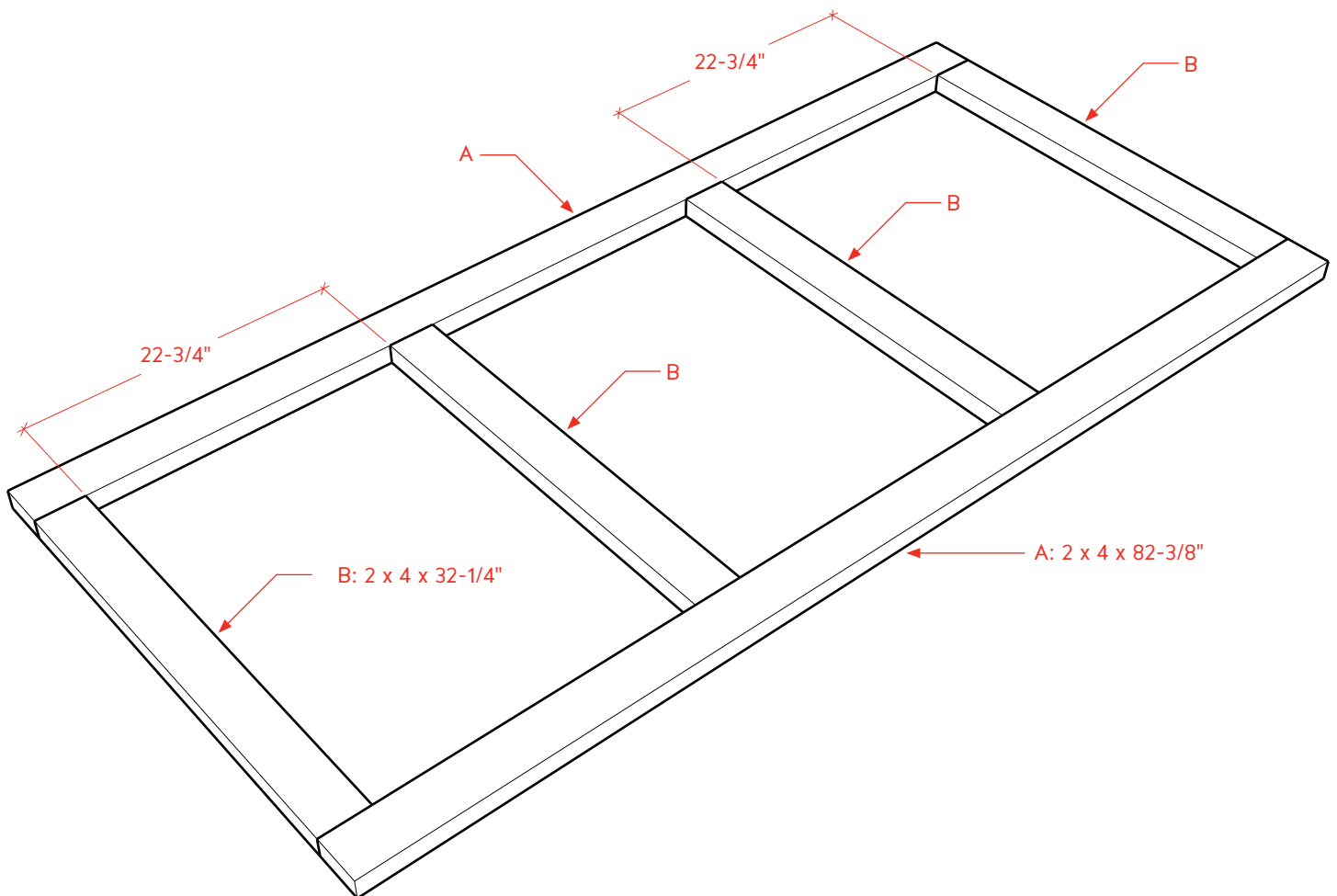
STEP 2. BUILD THE BASE

2a) Working on a level surface, lay out the 2x4 frame as shown.

2b) Drive screws on an angle through the cross members (parts B) into the front and back boards (parts A).

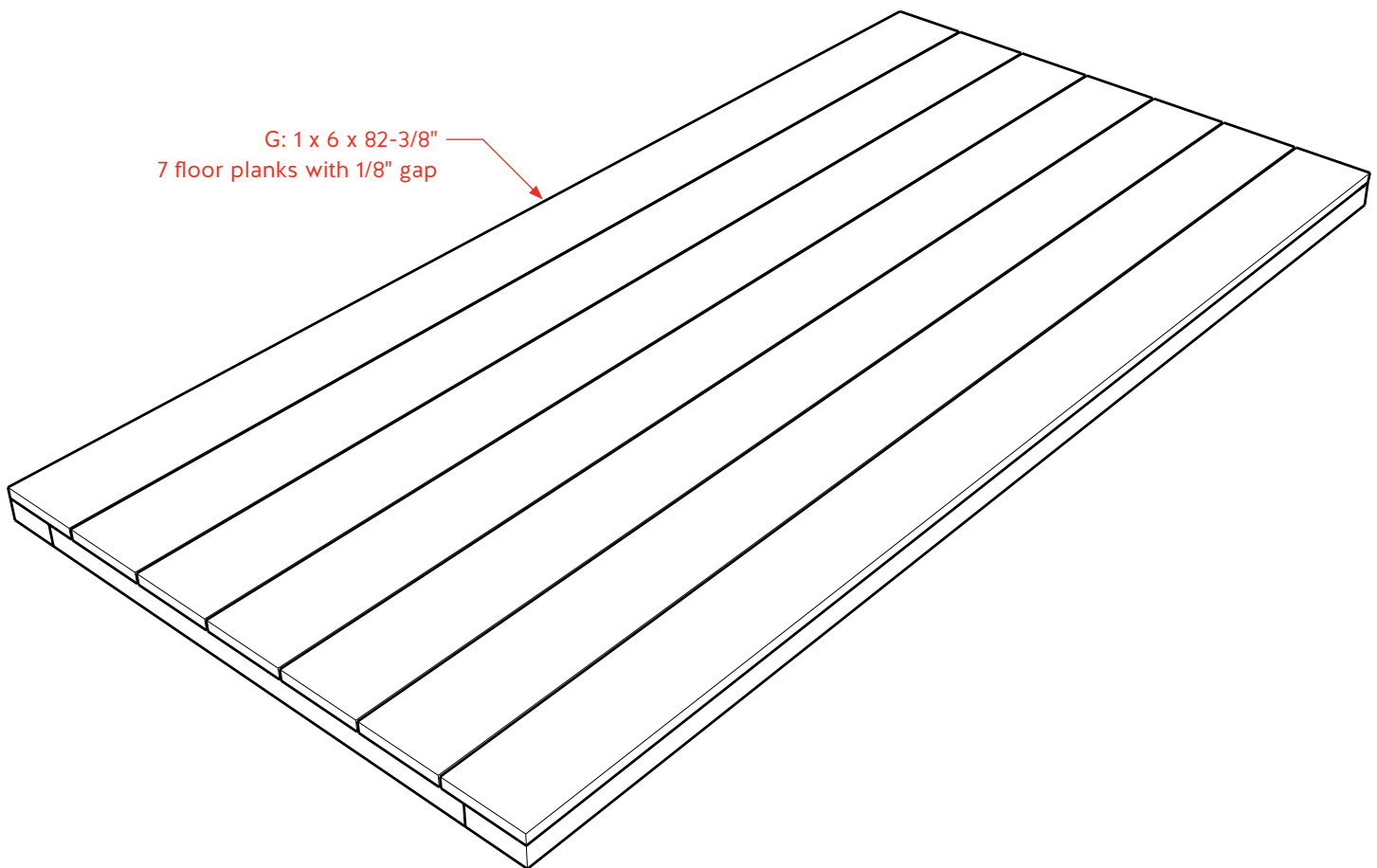
PRO TIP

Check to ensure the base is square by measuring corner to corner. If it's square, your diagonal measurements will be equal.



STEP 3. FASTEN THE FLOOR BOARDS

- 3a)** Lay your floor boards (parts G) on the base frame with 1/8" spacing between the boards to allow debris to fall through.
- 3b)** Fasten them to the base frame using 2, 1-1/2" screws at each end (to eventually be hidden under the side walls).
- 3c)** Use 1-1/2" gun nails to fasten the boards to the 2 middle cross members, 2 nails per board, per cross member.



STEP 4. BUILD THE SIDE WALLS

4a) Use your base as a work surface to build the side walls lying down. The base edges can be used as a guide to help you to square the side walls but it's best to also use a framing square. Ensuring the walls are square will help everything come together smoothly.

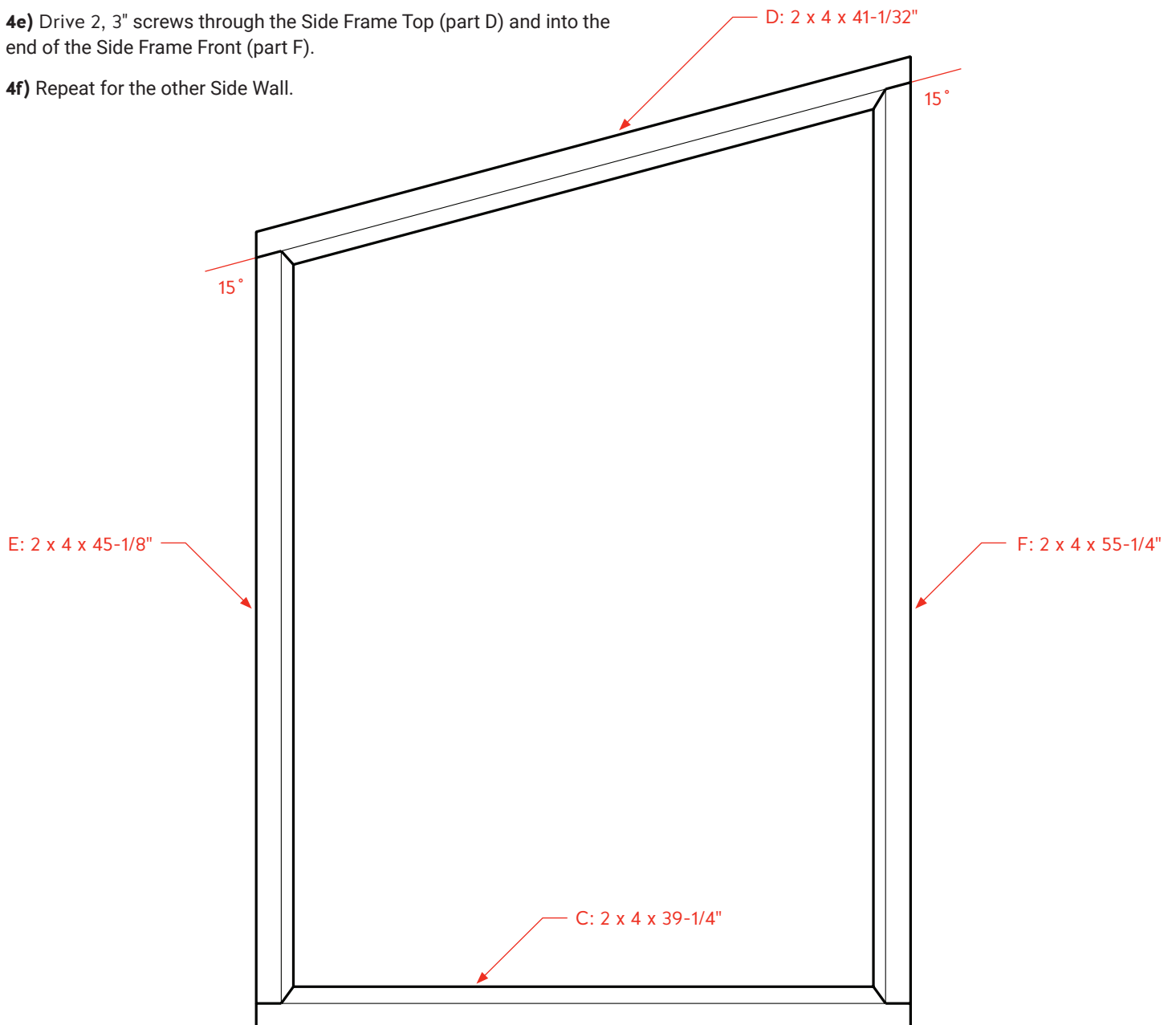
4b) Drive 2, 3" screws through the Side Frame Bottom (part C) and into the end of the Side Frame Back (part E).

4c) Drive 2, 3" screws through the Side Frame Bottom (part C) and into the end of the Side Frame Front (part F).

4d) Drive 2, 3" screws through the Side Frame Top (part D) and into the end of the Side Frame Back (part E).

4e) Drive 2, 3" screws through the Side Frame Top (part D) and into the end of the Side Frame Front (part F).

4f) Repeat for the other Side Wall.

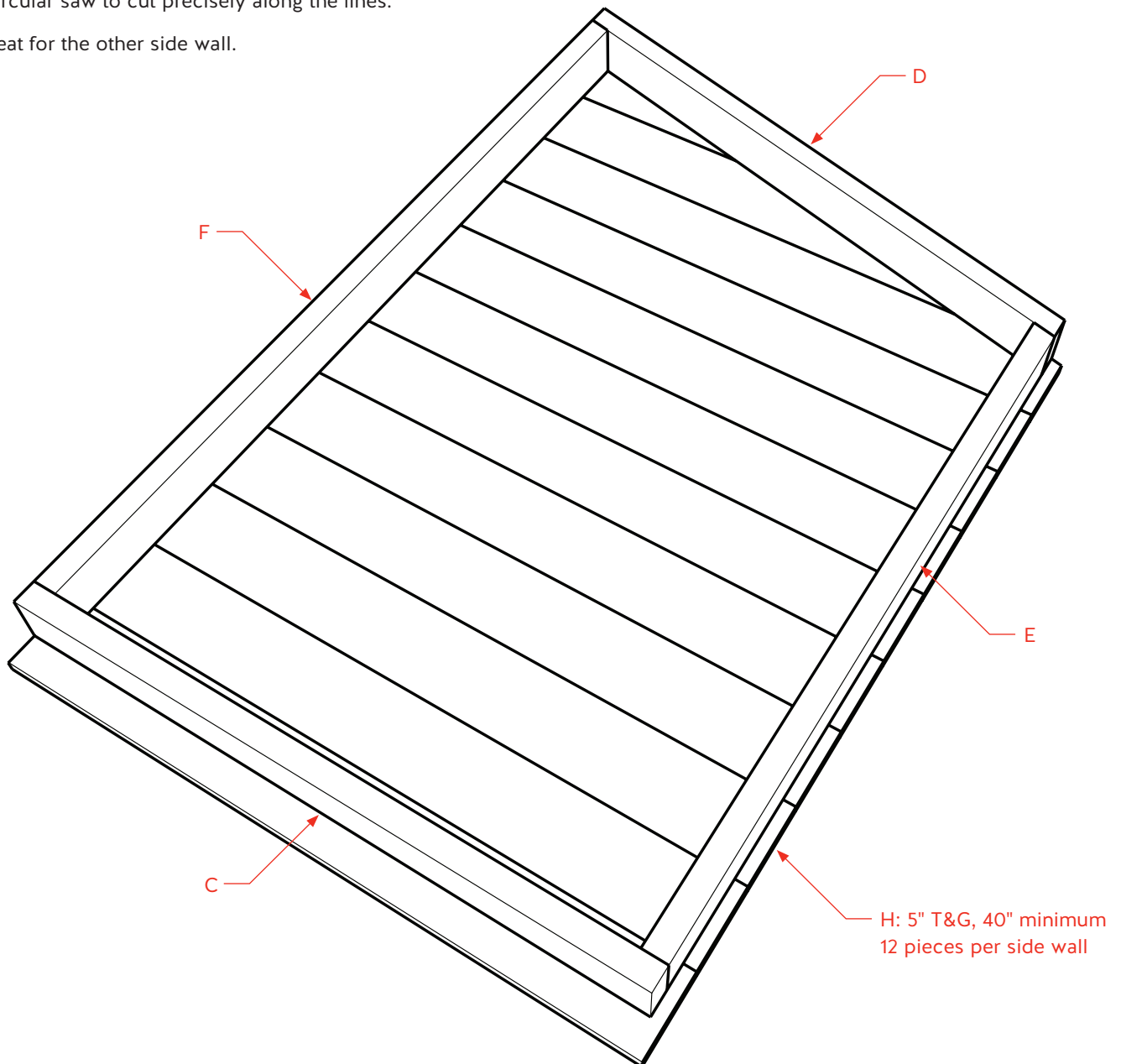


4g) Install Side Siding (part H) starting with the bottom board. Overhang the board 2" past the bottom edge of the Side Frame so it will cover the base once the wall is erected. Overhang the back of the side frame by 3/4" to eventually cover the siding edges of the back wall (yet to be built).

The bottom piece of siding should be cut to length before it is installed. Let the remaining siding overhang the front edge of the Side Frame as it will be trimmed after it is fastened in place.

4h) Use gun nails to fasten the siding to the frame. Mark your cut lines on the siding, flush to the front and top edges of the Side Frame and use a circular saw to cut precisely along the lines.

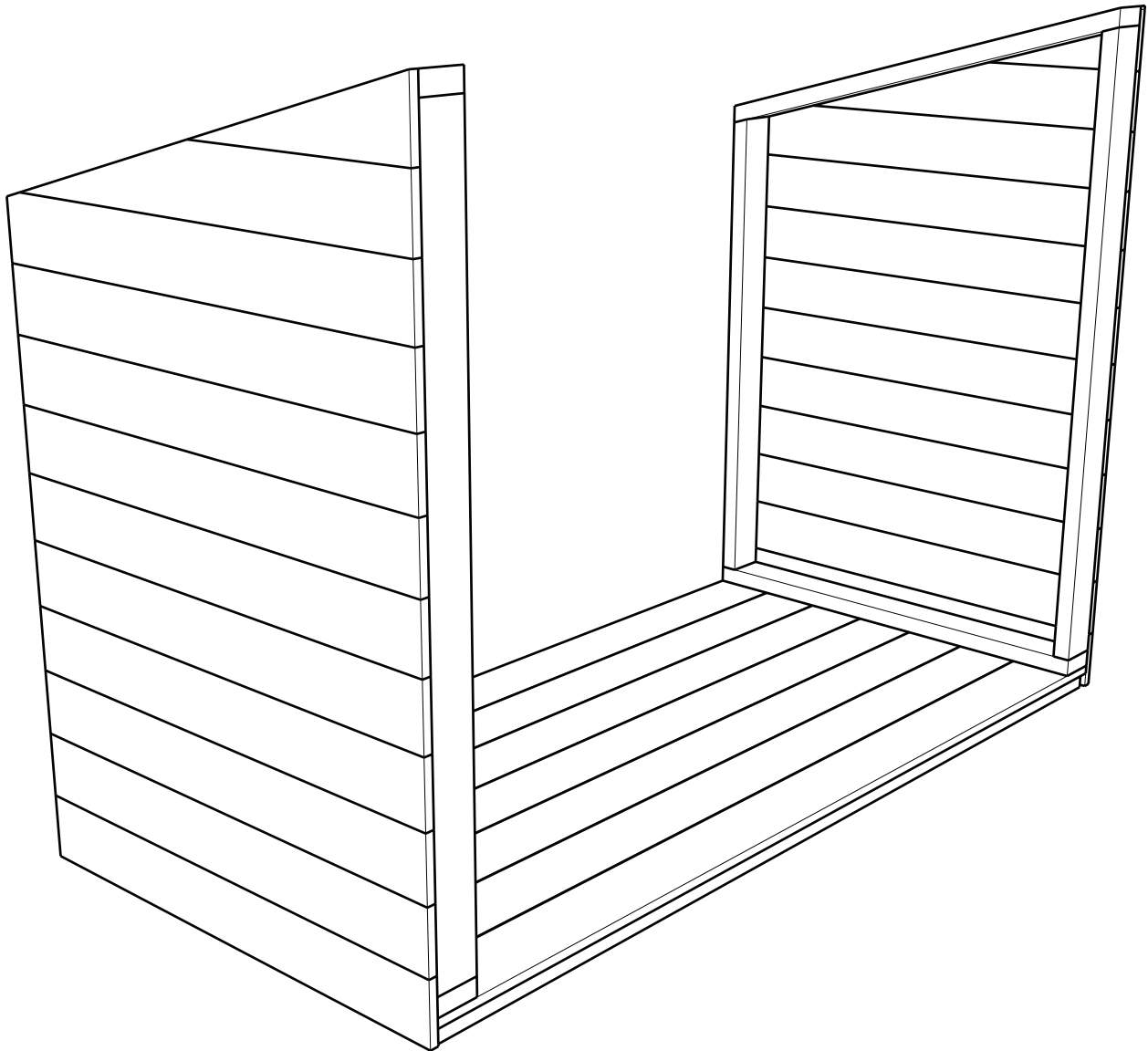
4i) Repeat for the other side wall.



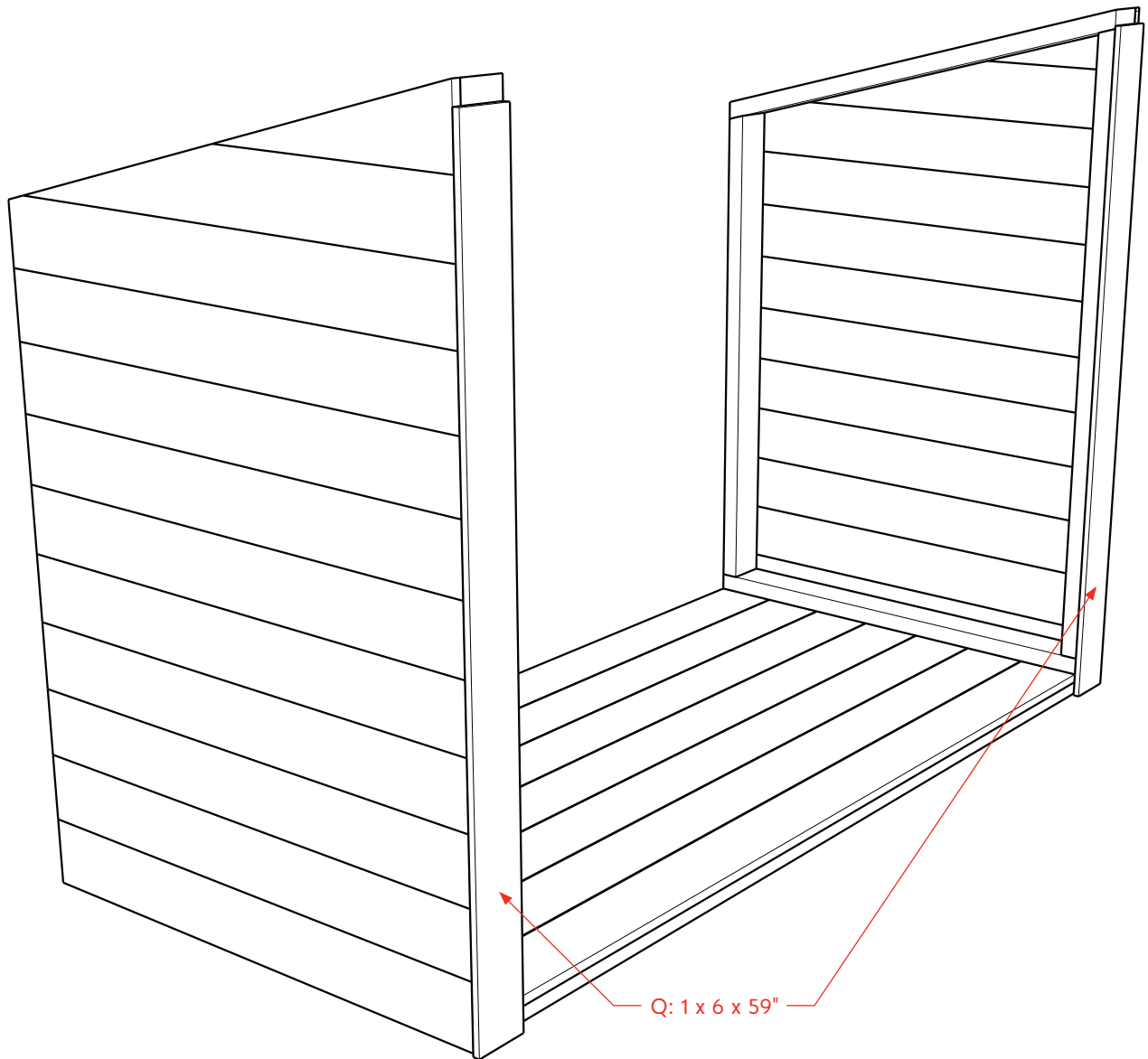
**STEP 5.
ERECT THE SIDE WALLS**

5a) Tilt up the side walls.

5b) Fasten each wall in place with 6, 3" screws through the bottom of the Side Frame and into the Base.



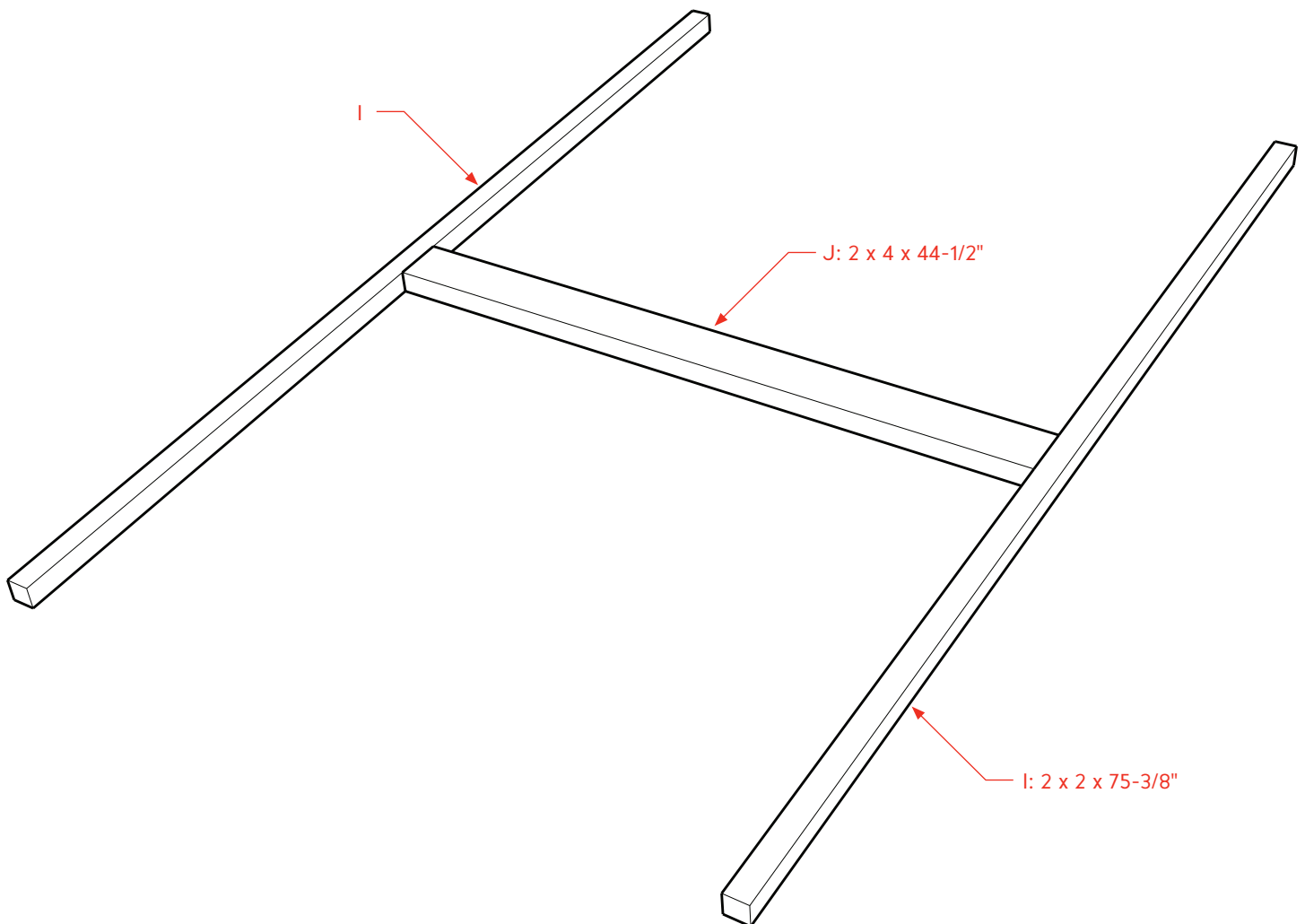
5c) Install Side Wall Front Covers (parts Q) to the fronts of the side walls.



STEP 6. BUILD THE BACK WALL

6a) Lay your 2 Back Frame pieces—top & bottom—(parts I) flat on the ground with the Back Frame Brace (part J) centred and perpendicular in between.

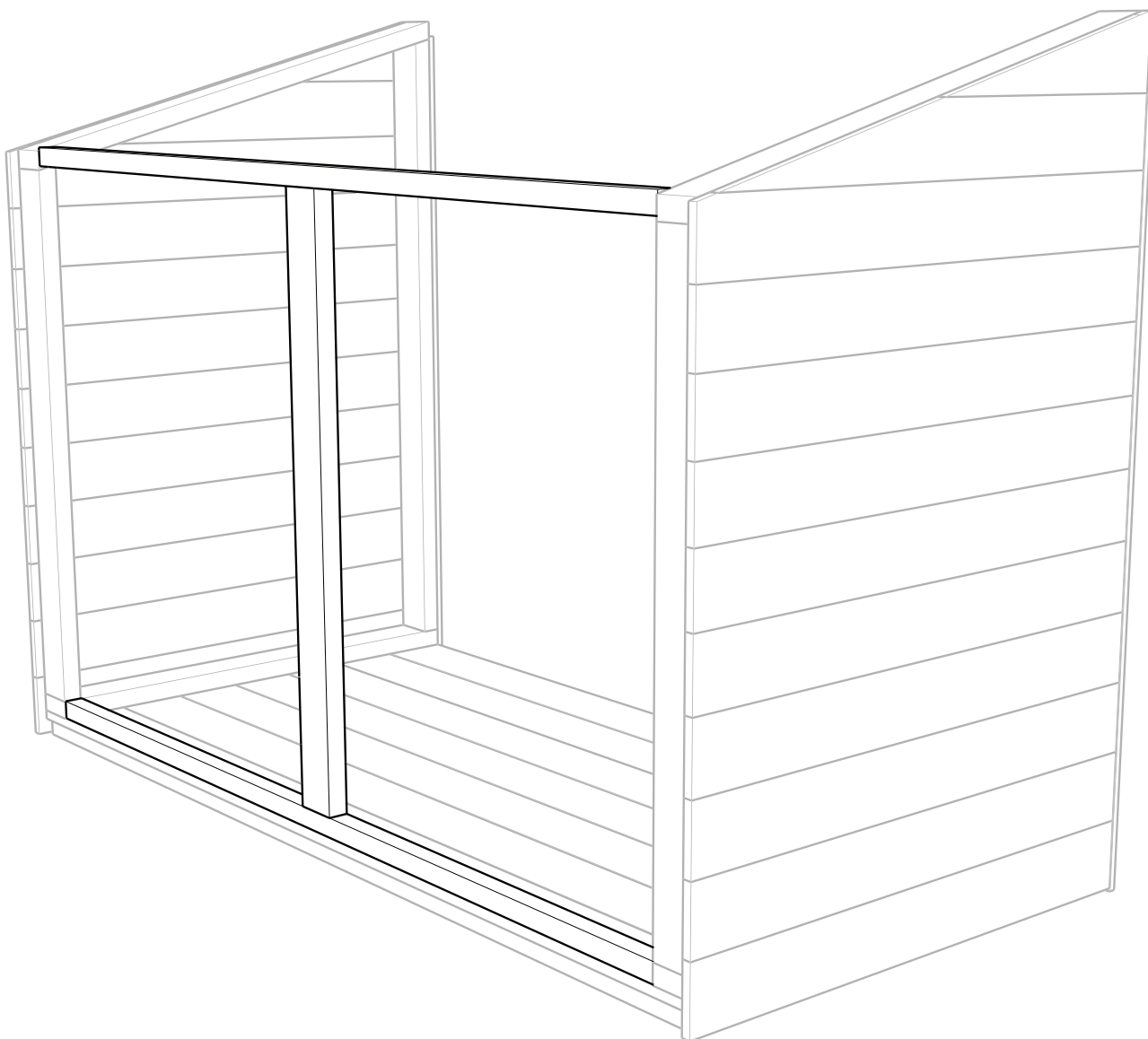
6b) Use 2, 3" screws through each of the Back Frame pieces (parts I) and into the ends of the Back Frame Brace (part J).



6c) Stand the assembled Back Frame in place on the back edge of the floor, between the Side Walls.

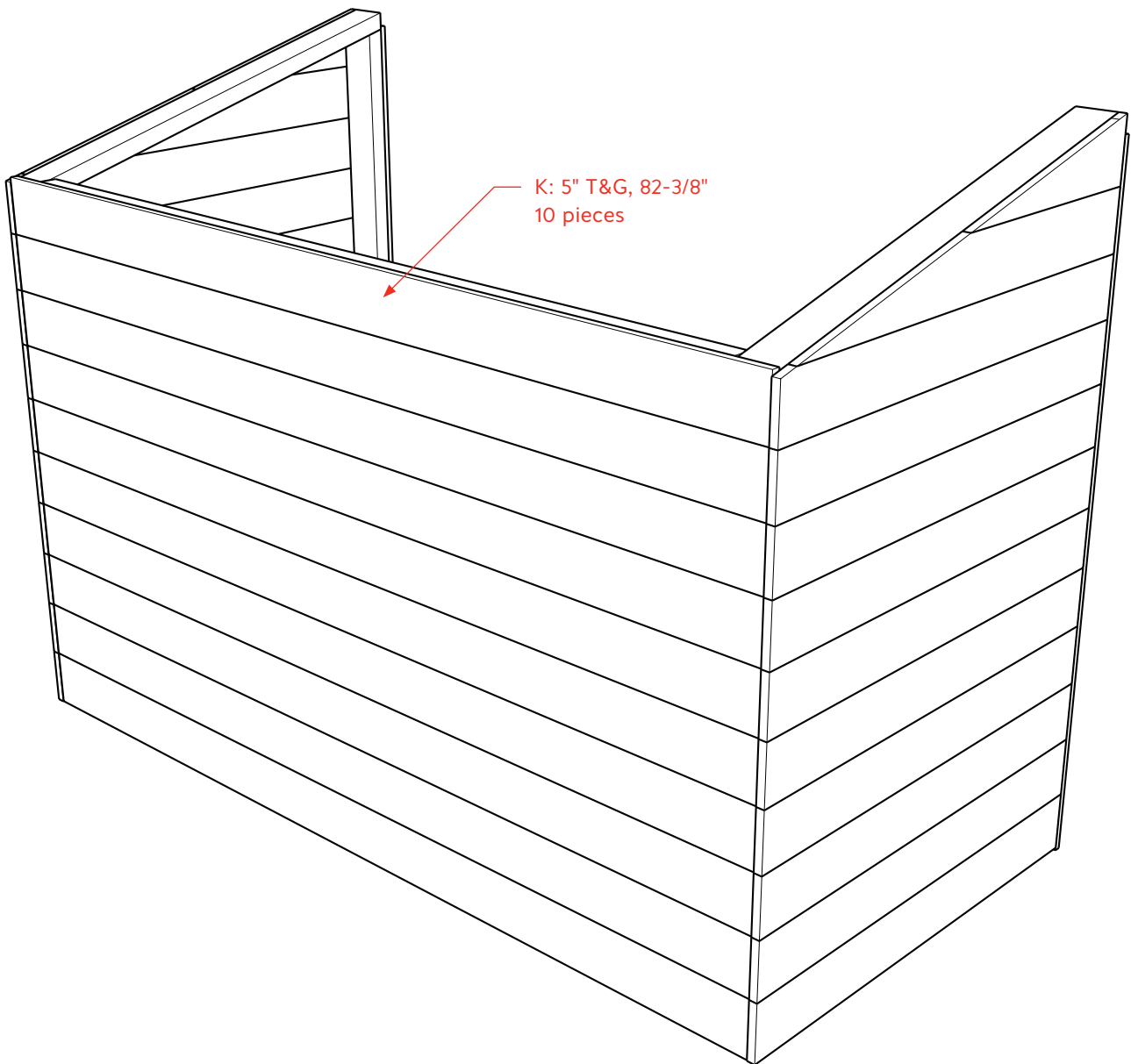
6d) Use 4, 3" screws through the bottom of the Back Frame and into the Base.

6e) Drive 2, 3" screws at angles through each of the top ends of the Back Frame and into the Side Frames. Double check that the Back Frame is square by measuring diagonally from corner to corner, looking for identical measurements on both diagonals.



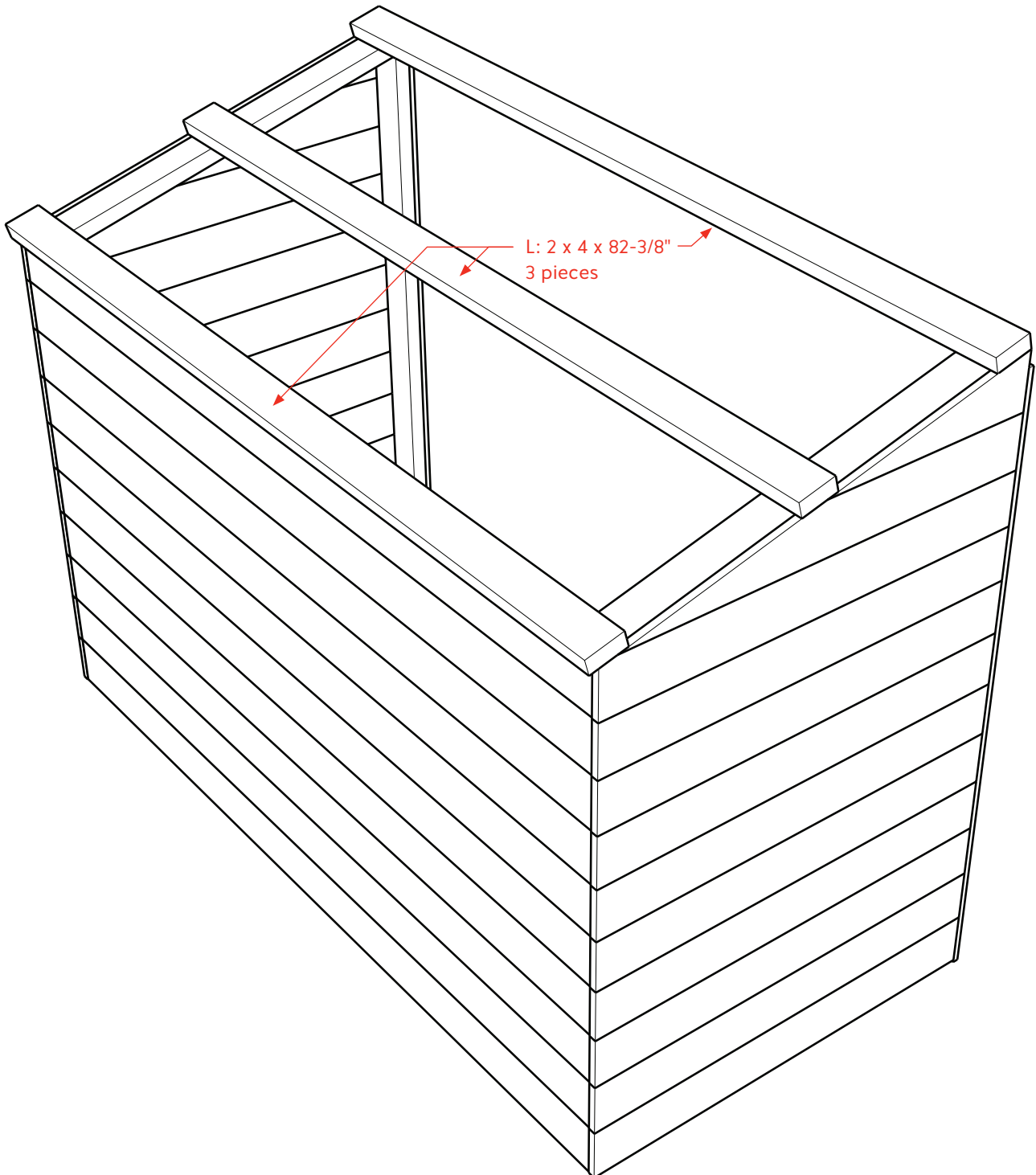
6f) Install the pre-cut Back Siding (parts K) using 6, 1-1/2" screws (2 at each end and 2 through the middle and into the Back Frame Brace (part J)).

Start with the bottom piece and work your way up, aligning the seams with those on the side walls.



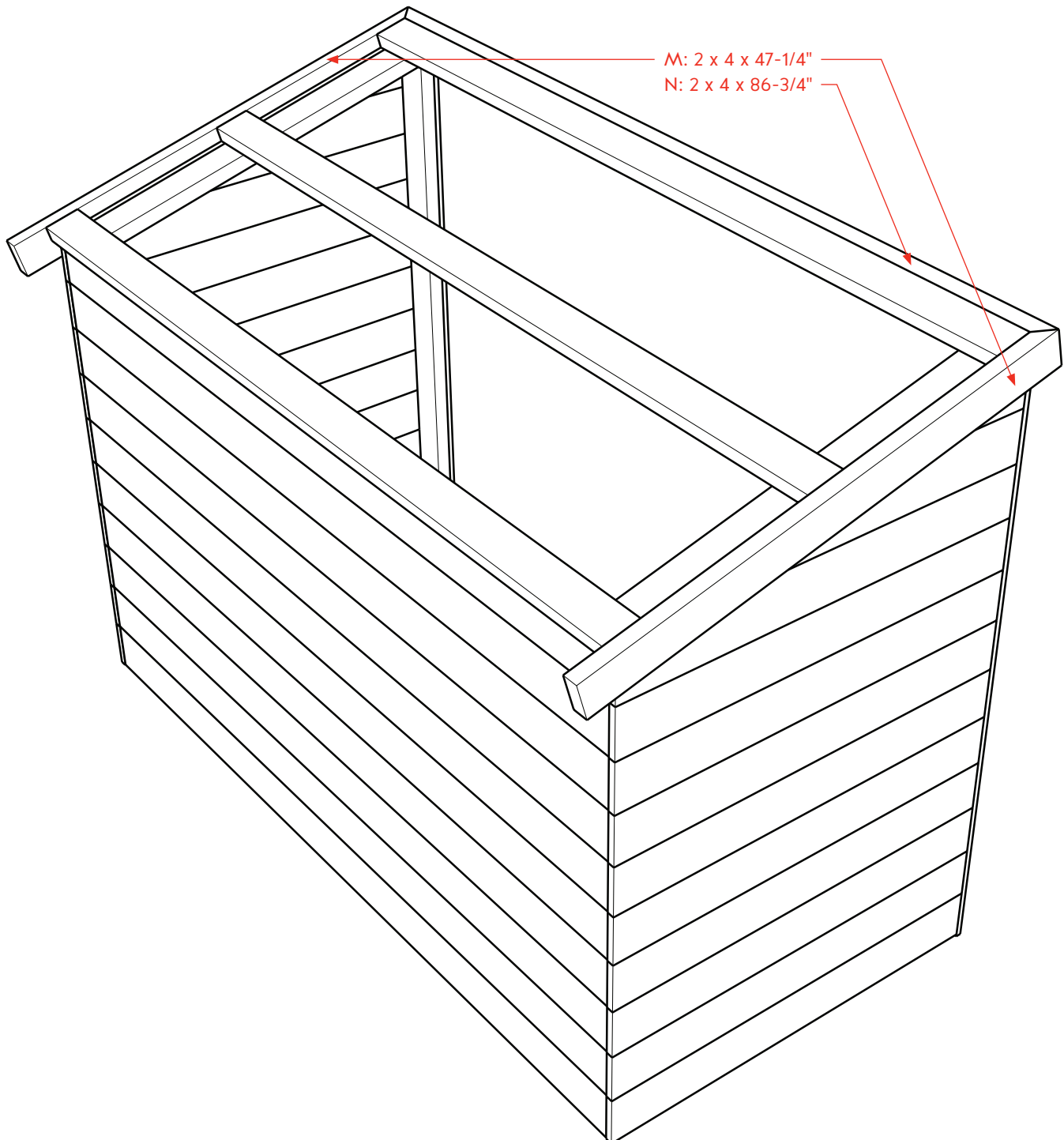
STEP 7. BUILD THE ROOF

7a) Install the 3 Roof Cross Braces (parts L), aligning one with the back wall, one with the front, and one in the centre. Drive 2, 3" screws down through each end of the Roof Cross Braces and into the Side Frame Tops.



7b) Add the 2x4 Roof Trim (parts M & N) to the sides and front of the shed with the top edges of the Roof Trim flush with the tops of the Roof Cross Braces (parts L).

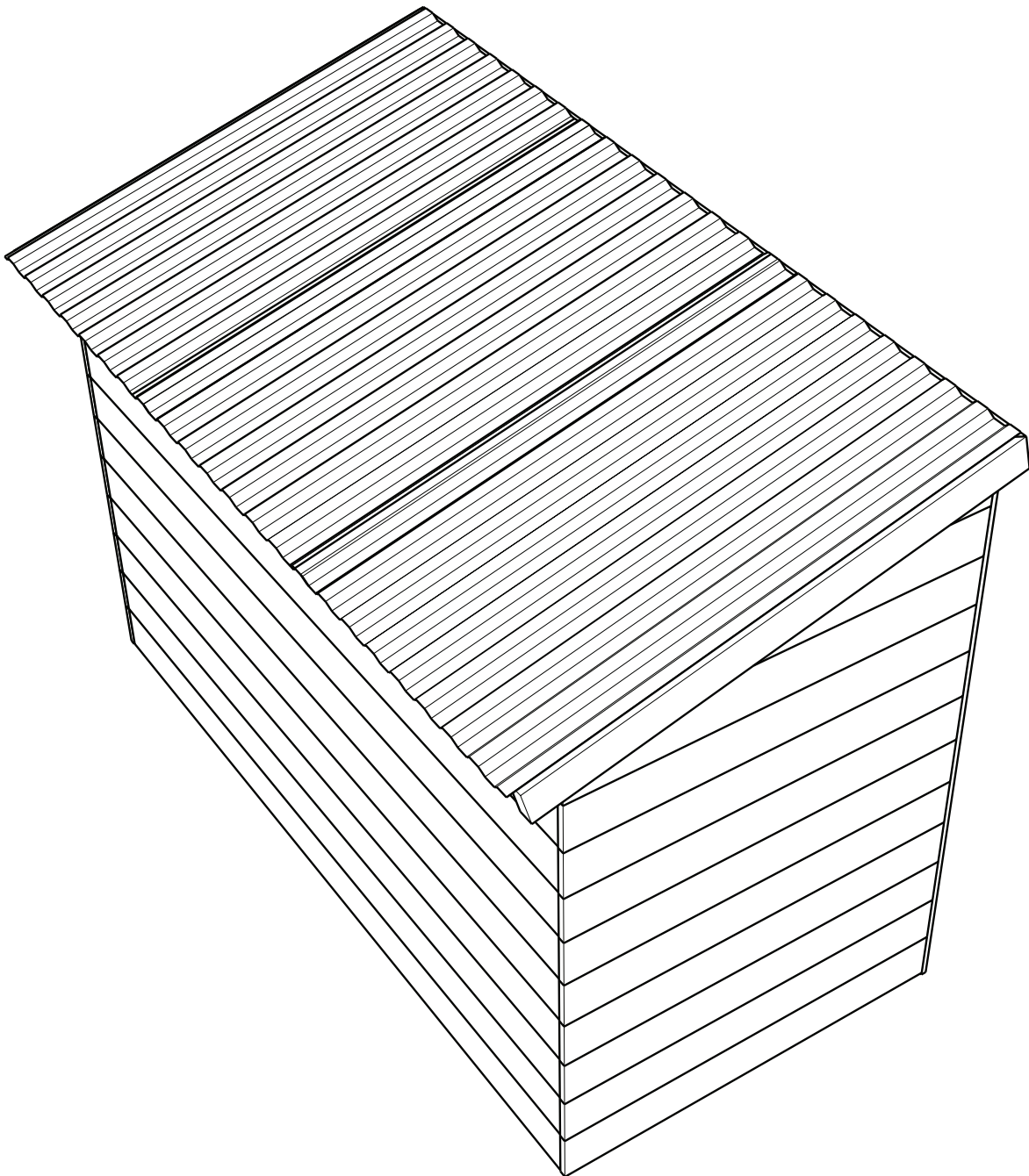
Fasten using 3" screws through the Roof Trim and into the Roof Cross Braces, 4 screws on the front, 3 on each side.



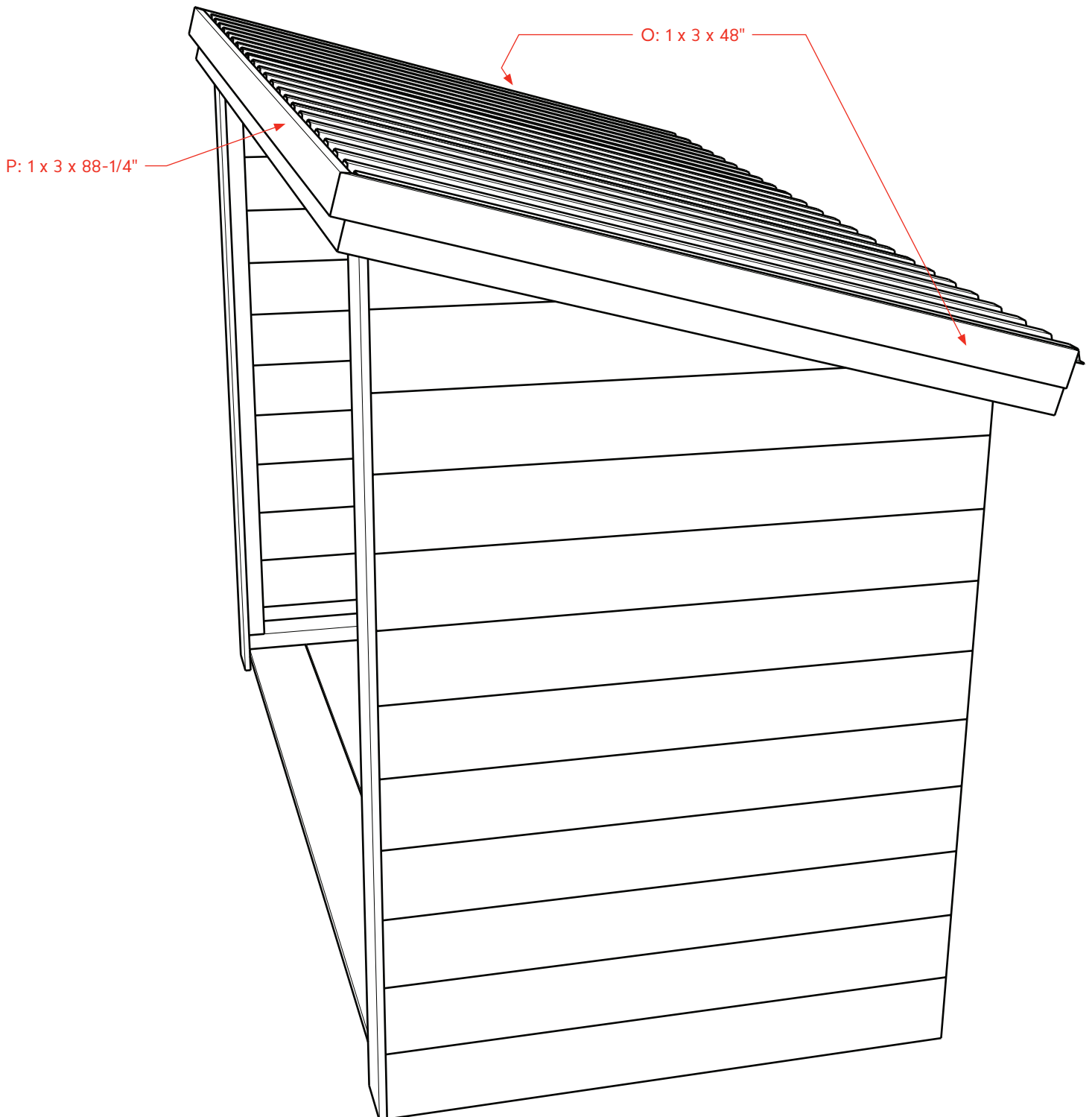
7c) Install your roofing according to best practices and the instructions for the specific roofing system you selected.

7d) If you're using corrugated polycarbonate, trim it to length with tin snips and overlap the panels by at least 2 ridges.

7e) Install using Galvanized Self-drilling Roofing Screws on the tops of every other ridge. It's important to use the screws on the ridges, not the valleys to avoid leaks and debris buildup against the screw heads.



7f) Install Roof Trim (parts O & P) on the front and sides of the roof to cover the edges of the roofing.



STEP 8. BUILD THE DOORS

Build each of the 4 door panel frames using parts R and S.

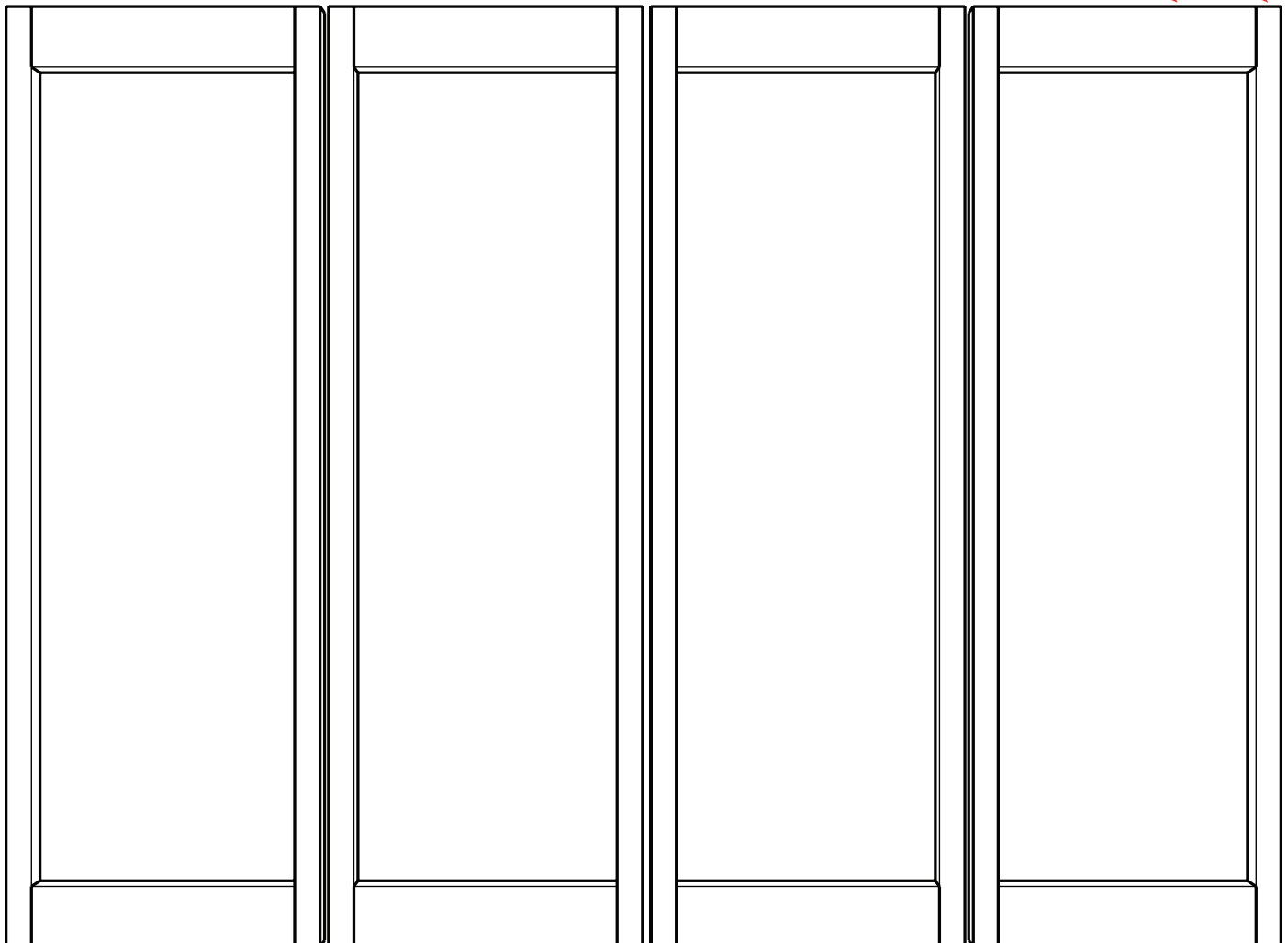
8a) Fasten the Door Panel Frame Sides (parts S) to the Door Panel Frame Ends (parts R) using a total of 8 screws per panel. Screws are driven through parts S and into the ends of parts R.

8b) Ensure the frames are square, line them up on an elevated flat surface with the ends overhanging to leave space for clamps.

8c) Clamp and/or tack the frames together using scraps of siding as spacers between the frames. You can use a taller board as a spacer though the centre. This will come in handy as you can butt the end of the siding against the board to ensure alignment with the outside of the Door Panel Frame, requiring less trimming in later steps.

S: 2 x 2 x 54-1/2"
8 pieces

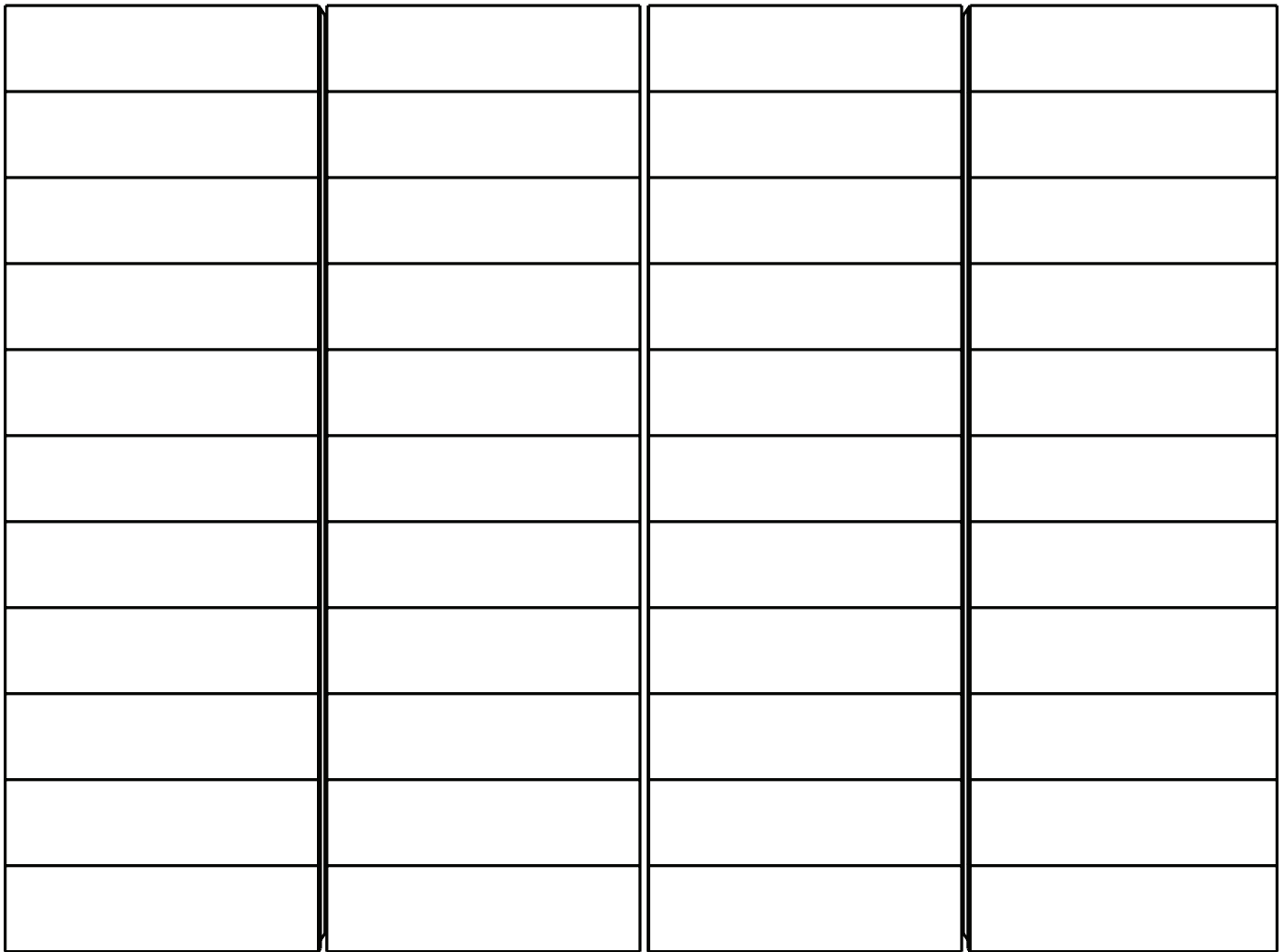
R: 2 x 4 x 15-9/16"
8 pieces



8d) Clad the Door Panel Frames with siding (parts T) and use Gun Nails to fasten them to the frames. Be sure to overlap the bottom frame by an inch as this will serve as a stop to prevent the doors from swinging into the shed.

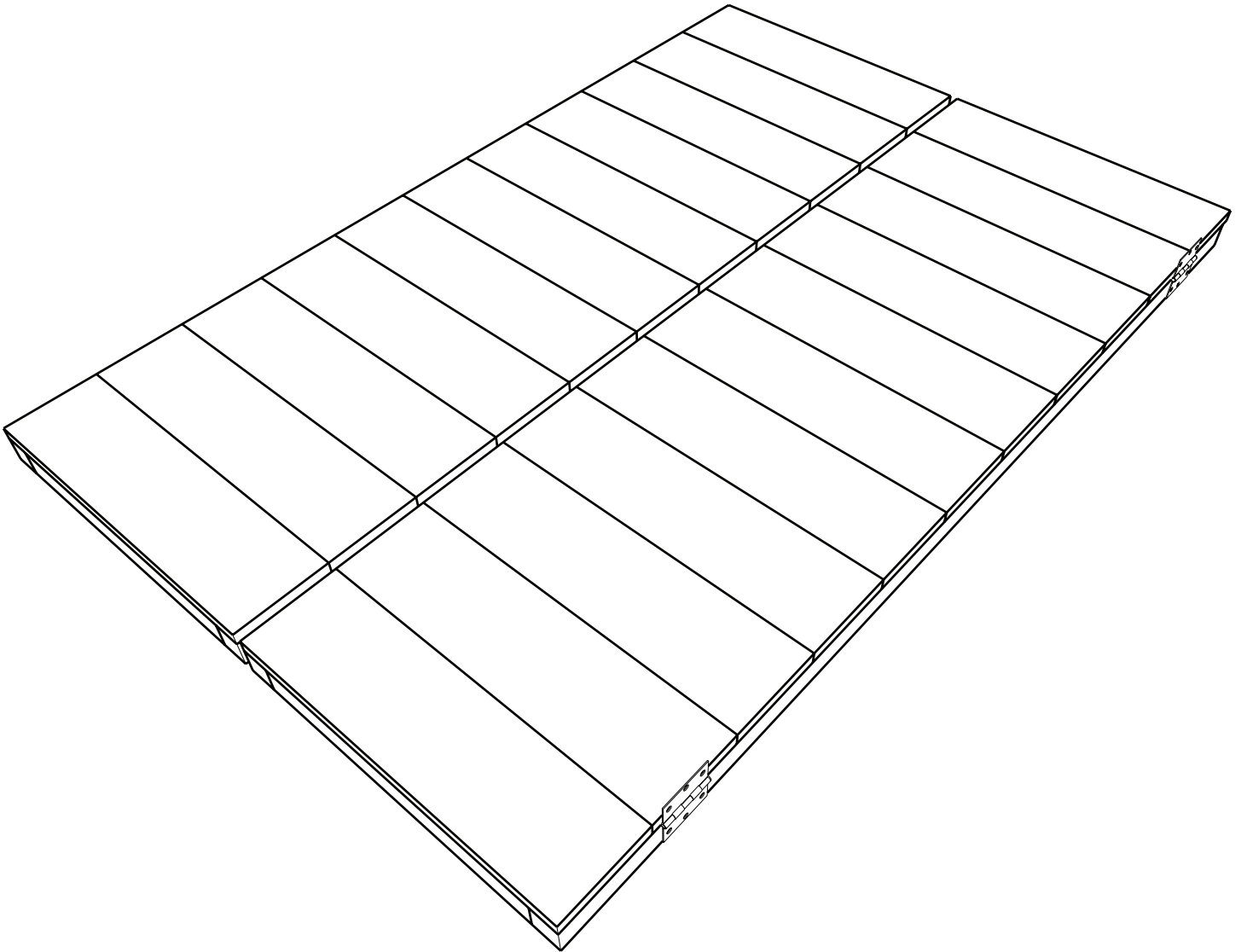
8e) Mark trim lines along the surface of the siding to indicate the location of the Door Panel Frame Edges (except the bottom) and use a circular saw to cut along the lines.

T: 5" T&G 



**STEP 9.
INSTALL THE DOORS**

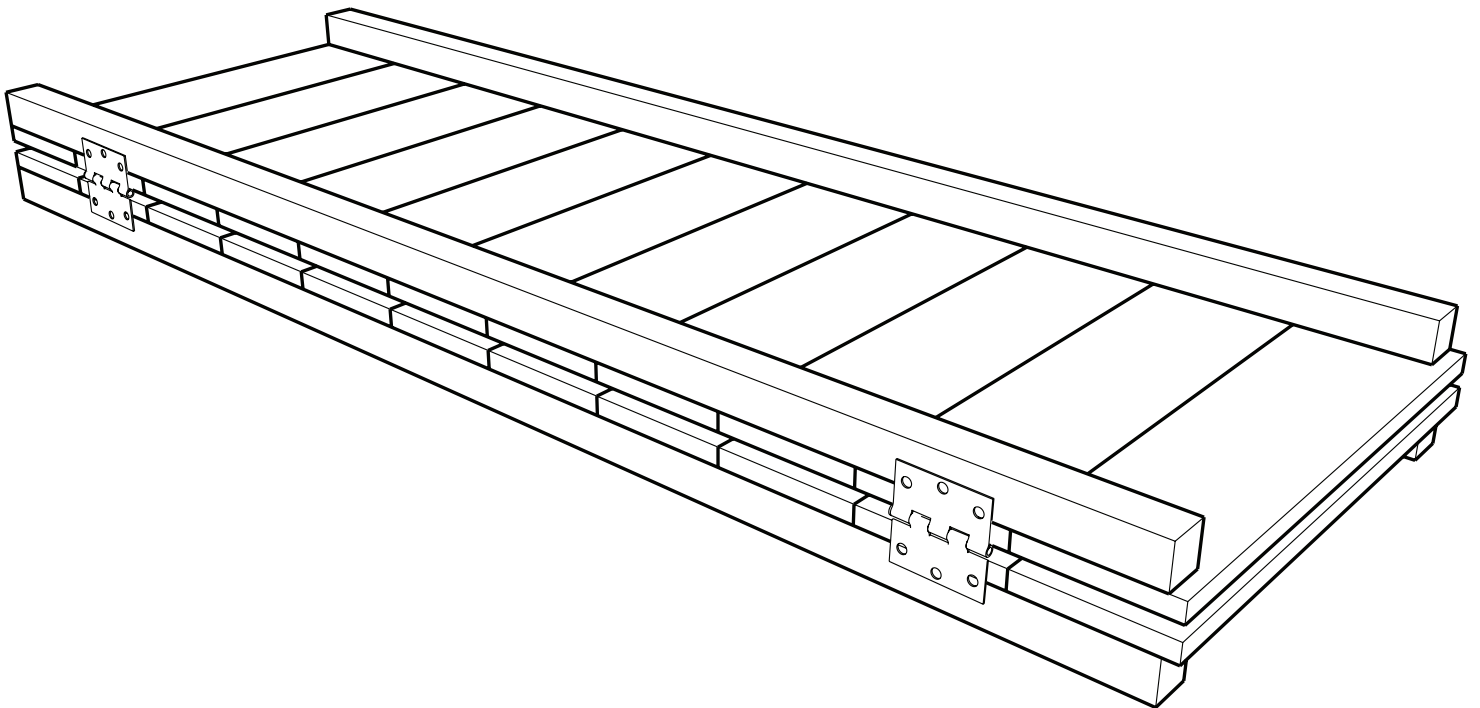
9a) With the doors laying flat, attach the outside hinges to the 2 Door Panel Frame Sides (parts S) that will be attached to the Side Frames (parts F) of the shed. Measure and install the hinges straight and precisely.



9b) Place the other half of each door face-to-face with the panels that now have hinges on them. Use 1/2" spacers in between and align the stacked door panels precisely.

9c) Install the remaining hinges open across the space that's been created by the spacers.

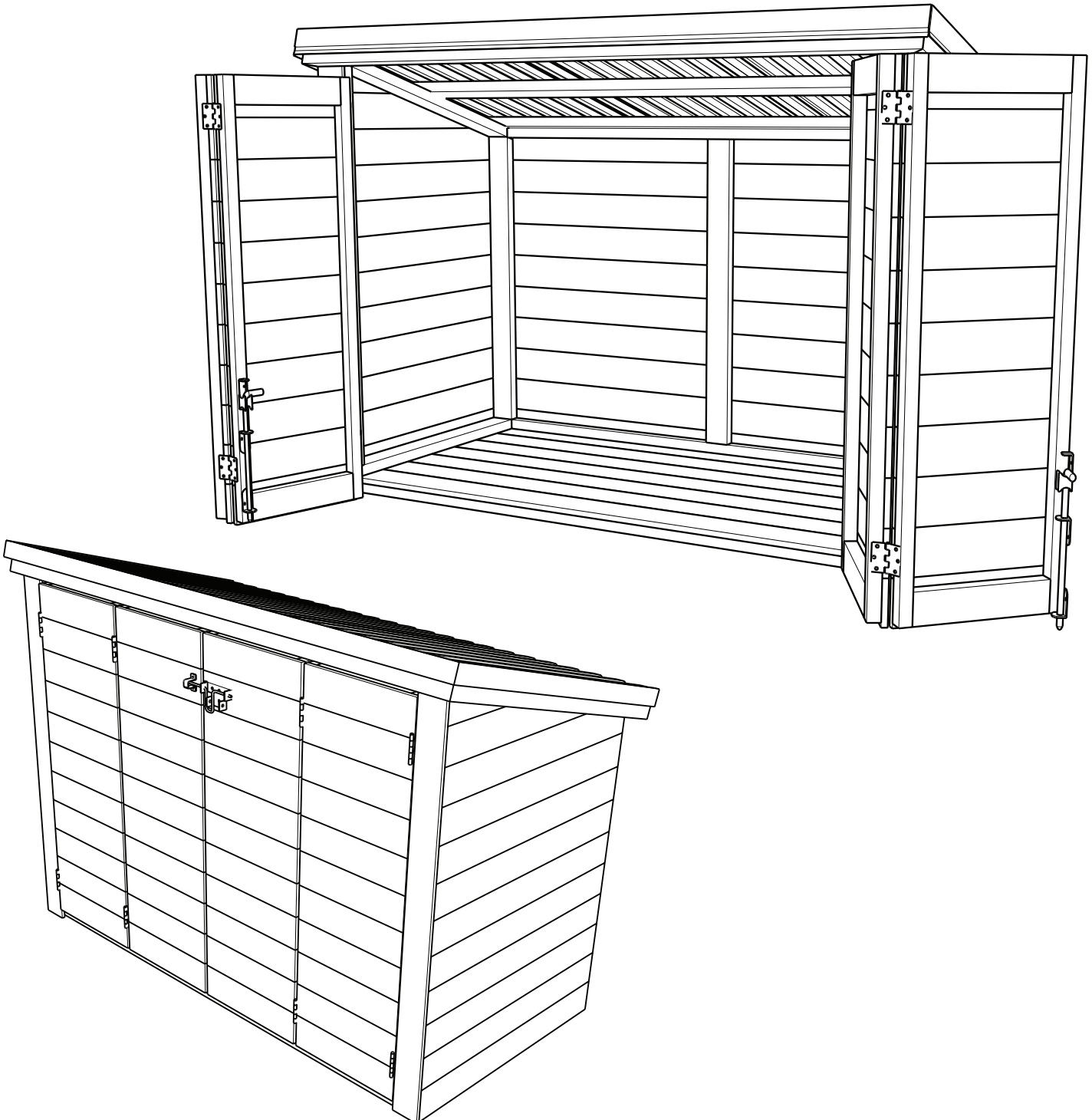
9d) Once both doors are complete with hinges, you can now mount them on the shed.



9e) Once both doors are complete with hinges, you can now mount them on the shed.

9f) Install a cane bolt on the inside of each of doors like the drawing below.

9g) Install the gate latch on the outside of the door.

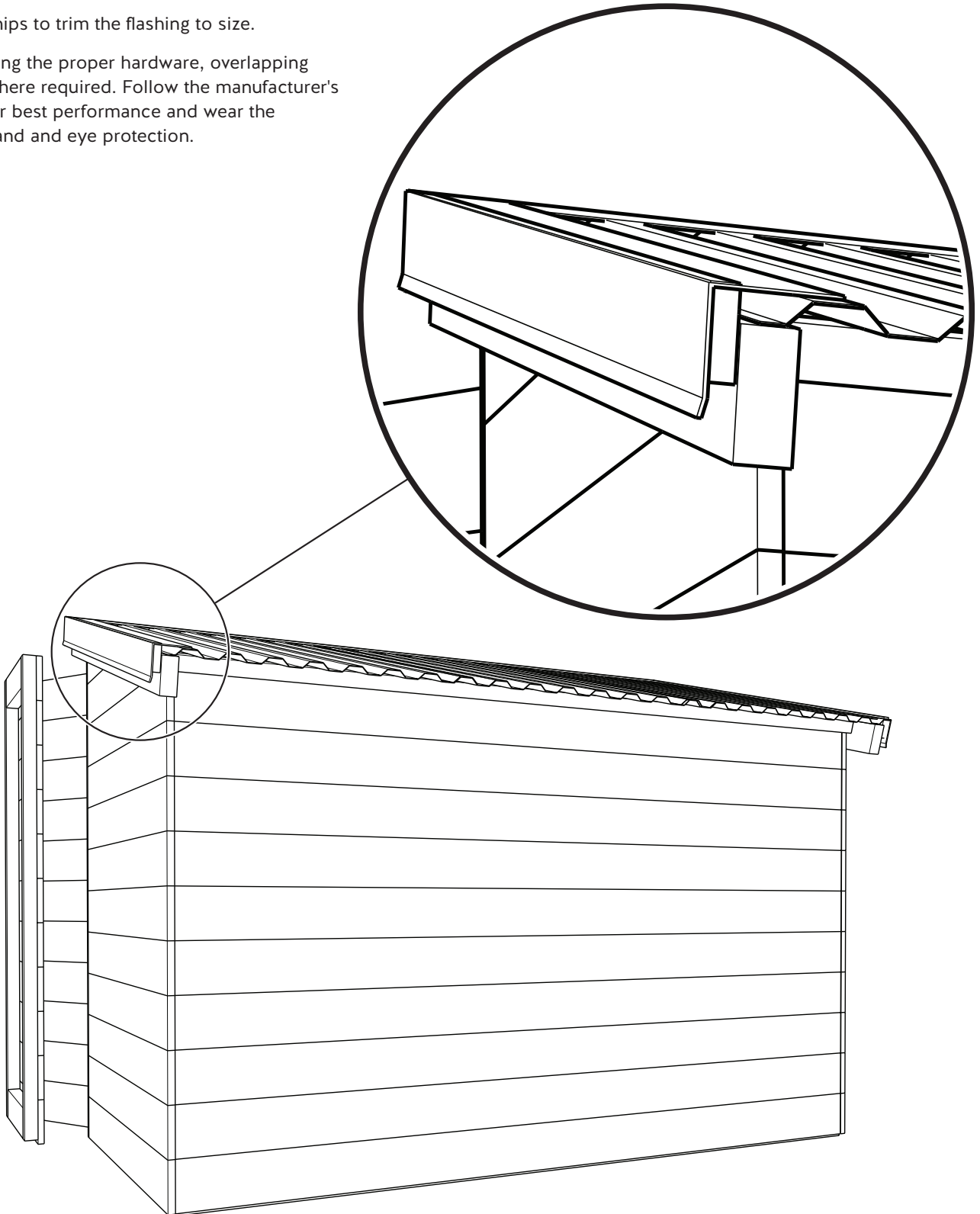


STEP 10. WATERPROOF THE ROOF

If you're using corrugated roofing and some other systems, you'll need to install flashing for the roof to work properly.

10a) Use tin snips to trim the flashing to size.

10b) Install using the proper hardware, overlapping the material where required. Follow the manufacturer's instructions for best performance and wear the appropriate hand and eye protection.



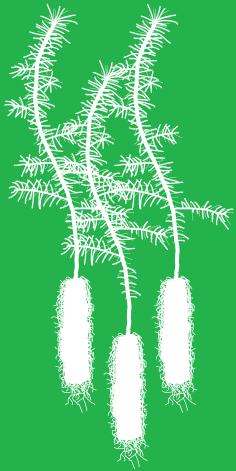
Cedars remove carbon from the atmosphere



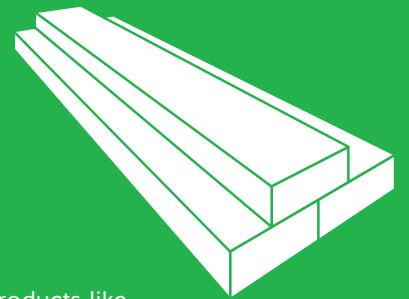
REAL CEDAR

THE MOST SUSTAINABLE CHOICE

Wood is the only major building material that is renewable—a reason why Canada's forest base is still abundant after 150 years of harvesting. For every Western Red Cedar that's harvested, at least 3 are planted. Lumber producers have been replacing harvested trees so diligently over the last few decades that North American forests have actually grown by 20% since 1970.



For every cedar harvested, at least 3 are replanted, continuing the cycle and reducing greenhouse gases



Products like Real Cedar decking and siding store it before it can be released