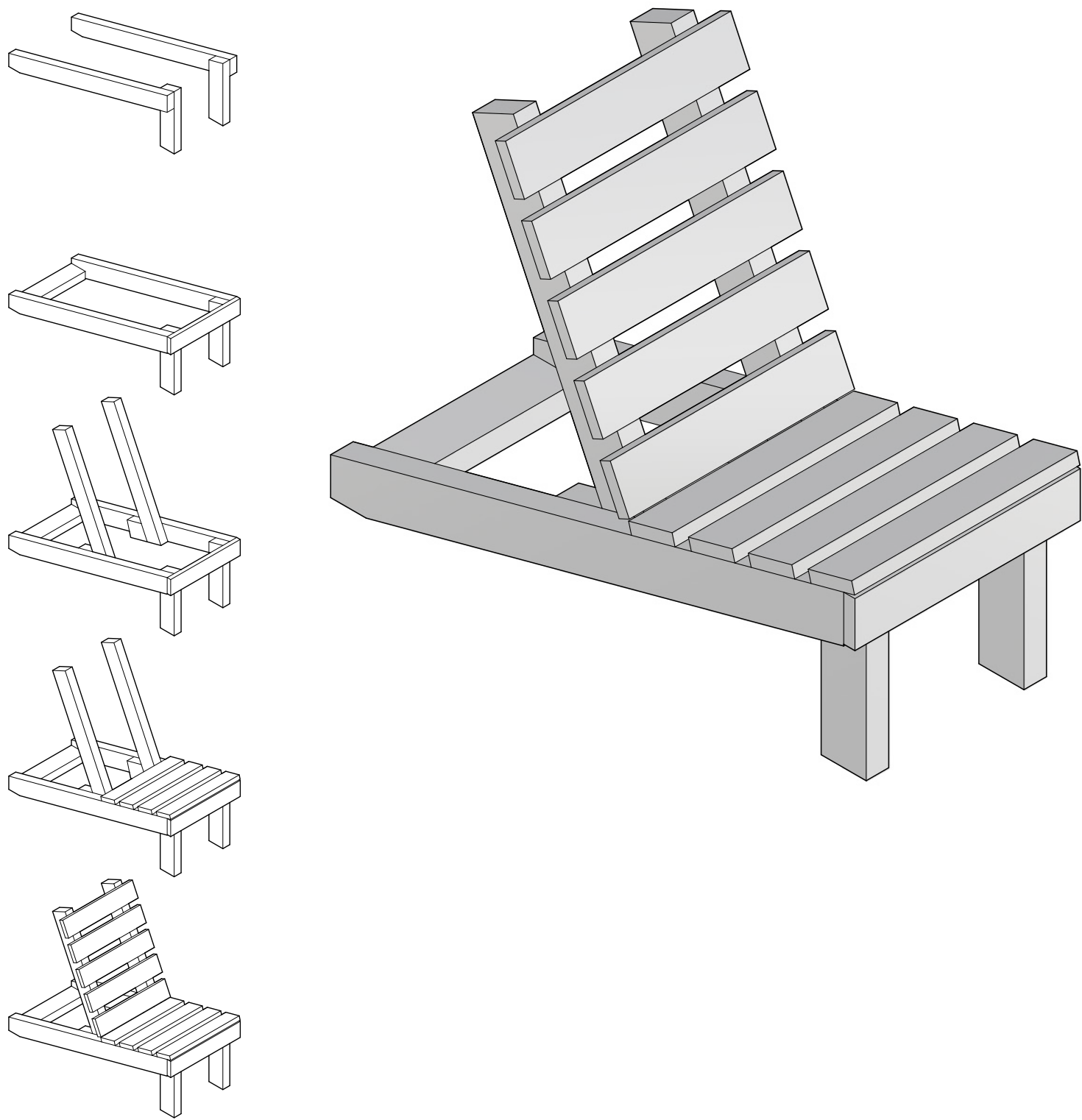


ADIRONDACK PALLET CHAIR INSTRUCTION GUIDE

* DESIGNED FOR NATIONAL PARKLET DAY & CONGRESS OF NEW URBANISM BY ADAM PARSONS

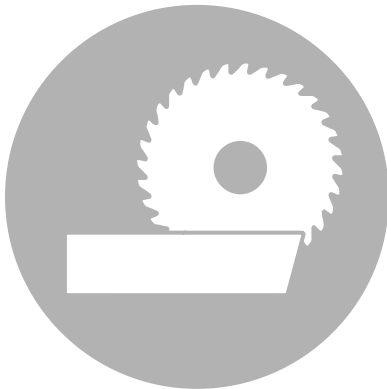


Ever have the desire to build some durable functional furniture without the high prices that often come with such projects? Are you a DIY enthusiast, hobbyist, urbanist, designer, or just an average person with an interest in making things? Well great, because the following simple steps will walk you through the process of breaking down pallets, preparing the chair components, and the actual assembly of your very own adirondack pallet chair. Any person with a very basic carpentry/building knowledge should be more than capable of completing all of following steps. Remember to have fun and happy building.

GUIDE INCLUDES:



MATERIAL
BREAKDOWN



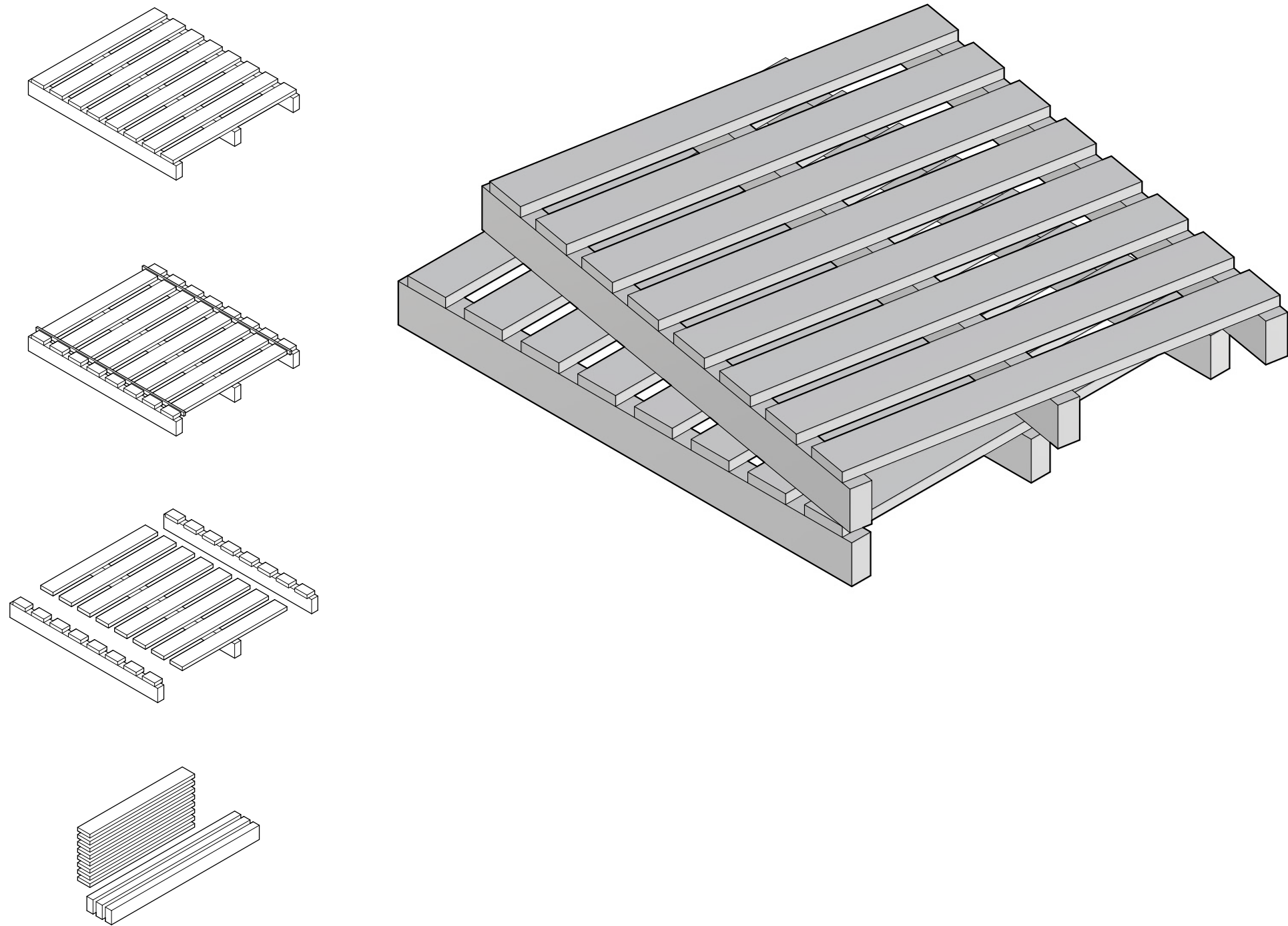
COMPONENT
PREPARATION



CHAIR
ASSEMBLY

MATERIAL BREAKDOWN

REQUIRED MATERIALS & TOOLS

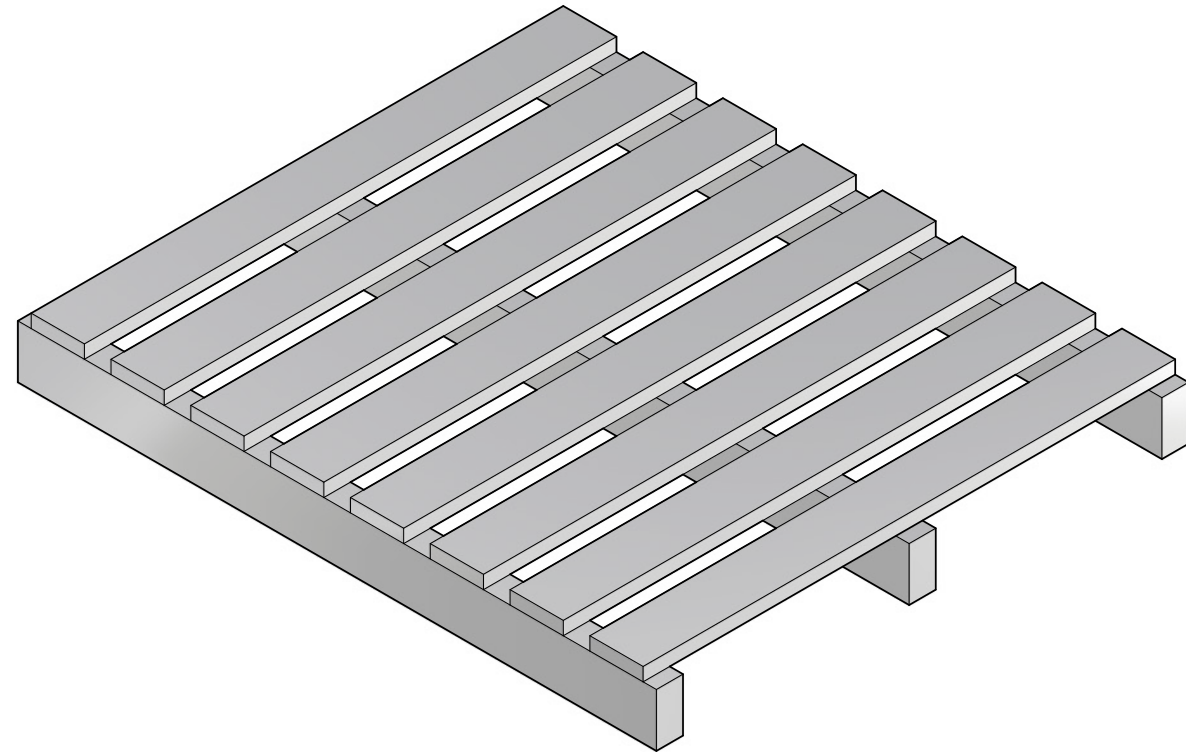
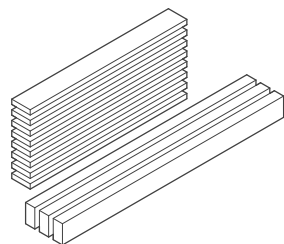
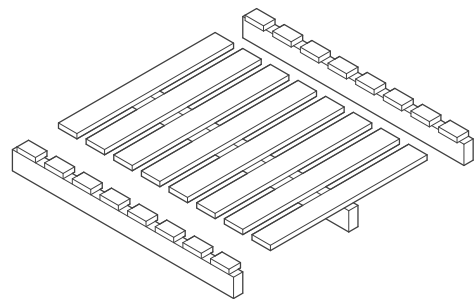
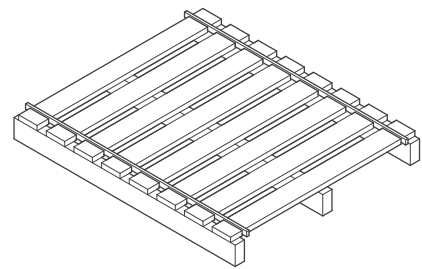
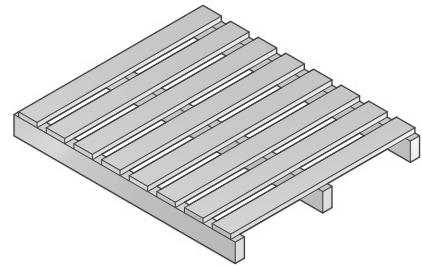


MATERIAL/TOOLS:

- (2) 40 X 48 INCH PALLETS (MINIMUM SIZE)
- HAMMER
- SKILLSAW
- PRY BAR
- ORBITAL SANDER (RECOMMENDED)
- PLAINER (OPTIONAL)
- CHOP SAW
- TAPE MEASURER
- PENCIL
- 2 INCH SCREWS
- CORDLESS SCREW GUN
- CORDLESS DRILL (OPTIONAL)

MATERIAL BREAKDOWN

PALLET DISASSEMBLY

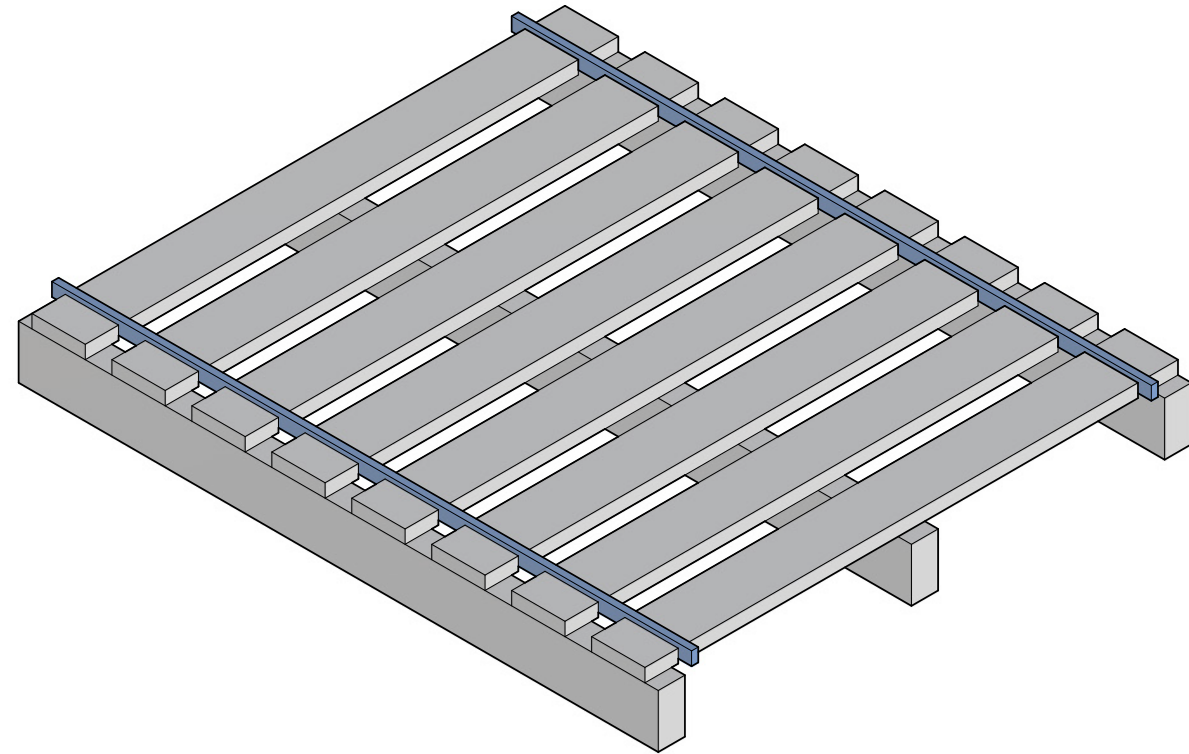
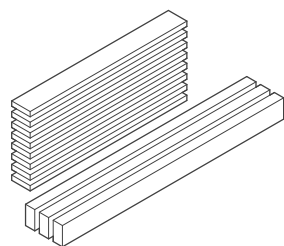
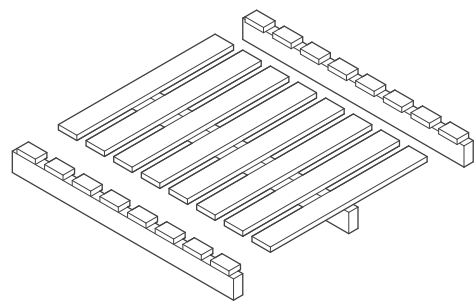
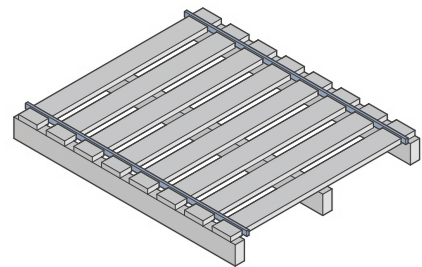
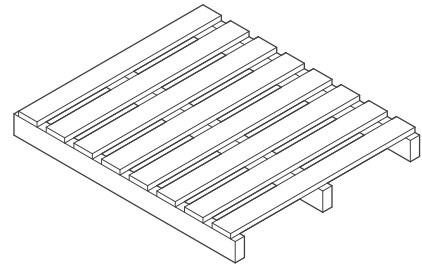


STEP 1: ACQUIRING PALLETS

Pallets are fairly easy to come by. My advice is to contact your local grocery store, hardware stores, or mom and pop businesses. Explain what you are doing and you can likely grab one or two for free. Pallets themselves come in all sorts of sizes, shapes, and configurations. The desired minimum size is 40 x 48 inches. Anything bigger is fine, but if you happen to get a pallet that is smaller, you may need three in order to complete your chair. It does not hurt to have some extra pallets too just in case a board breaks during disassembly, which you will find to be a common occurrence.

MATERIAL BREAKDOWN

PALLET DISASSEMBLY

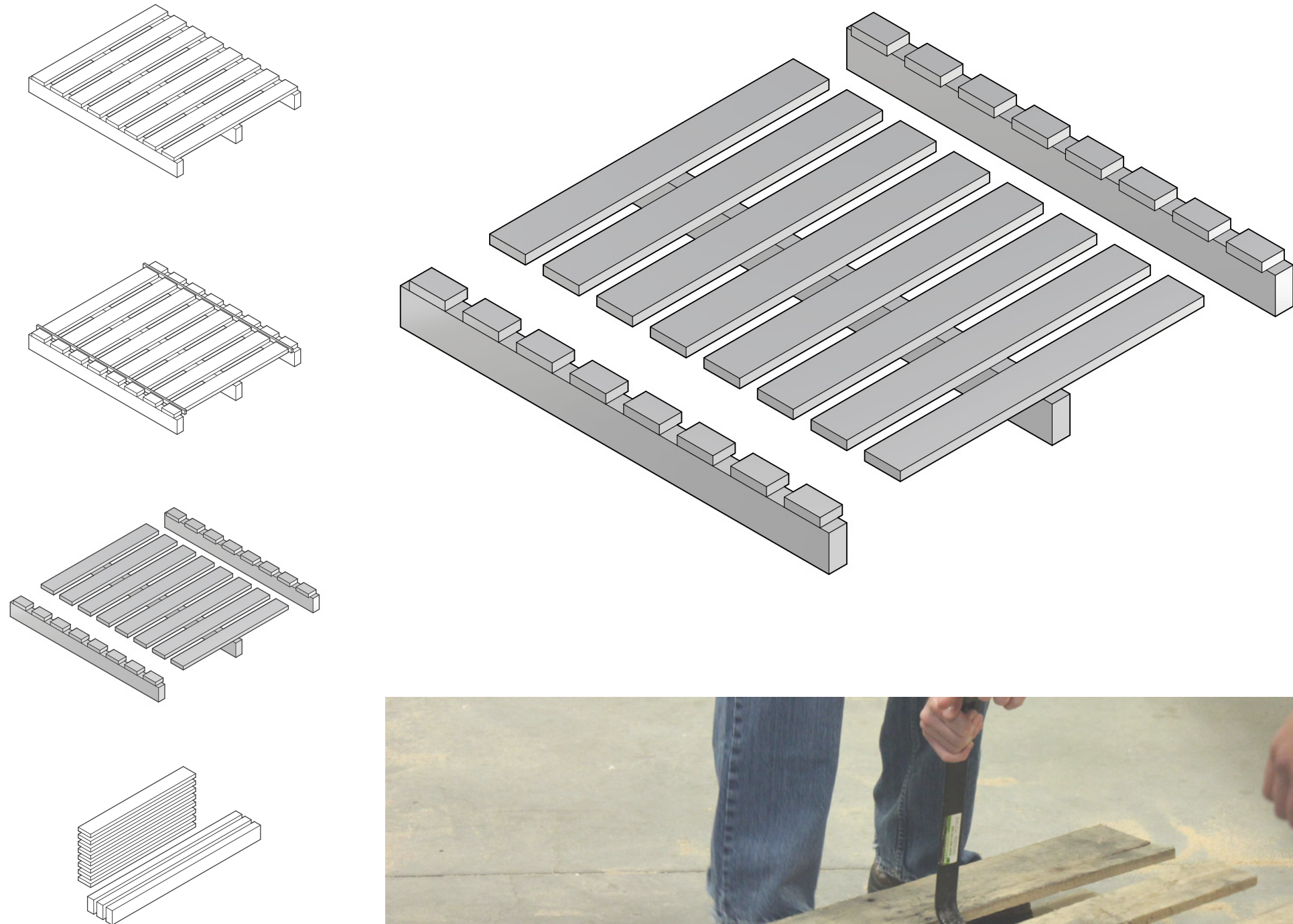


STEP 2: CUTTING OFF THE OUTSIDE RAILS

There are many ways to break down a pallet, but this technique I have found to be the quickest and best way to save the most intact lumber. With a skill saw, rip a cut a few inches to the inside of each outside 2 x 4 rail on the pallet. The cuts would be along the blue lines in the picture to the left. Please be careful to know your skill level. If the use of a skill saw is outside your abilities, ask for help from someone who is comfortable using the tool.

MATERIAL BREAKDOWN

PALLET DISASSEMBLY



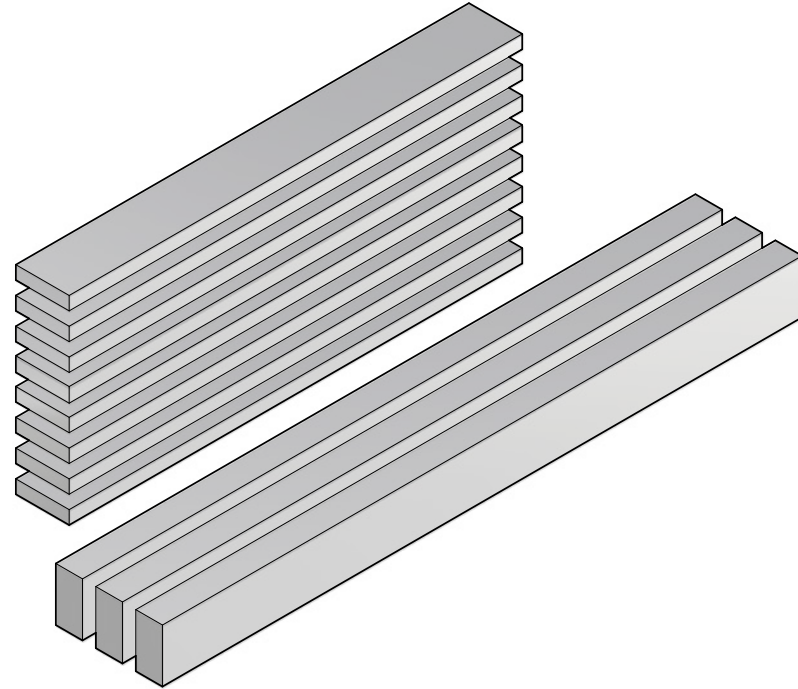
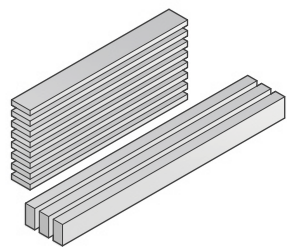
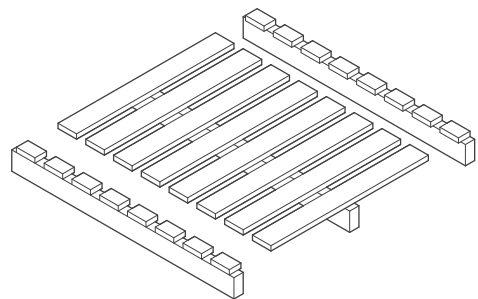
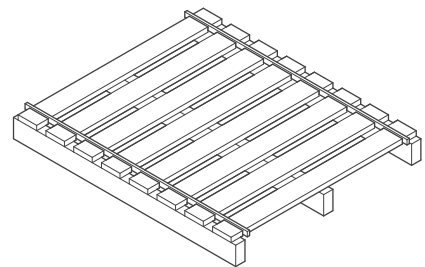
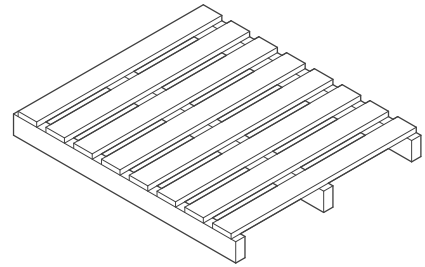
STEP 3: PRYING OFF THE BOARDS

This step requires some finesse. Using a hammer and a pry bar, carefully separate the 1 inch slat boards off of the 2 x 4 rails. The two outside 2 x 4's should require only a few small hits on each small piece to dislodge it. Then remove the nails afterwards. The larger 1 inch slats on the center rail should be removed in a similar fashion to what can be seen in the picture below. Use the leverage of the pry bar to carefully work the board off the 2 x 4. The trick is trying to keep both the 2 x 4 and the slats in decent shape, so you have good quality stock to cut the chair parts from. Not to worry if a few break though as it is sure to happen. You should still have plenty of extra wood with two fully disassembled pallets to make a chair regardless.



MATERIAL BREAKDOWN

PALLET DISASSEMBLY



STEP 4: CLEANING THE DISASSEMBLED PARTS

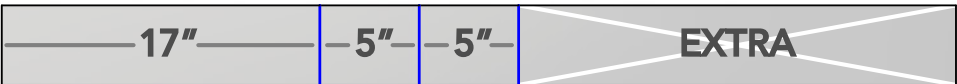
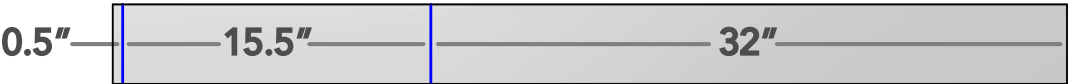
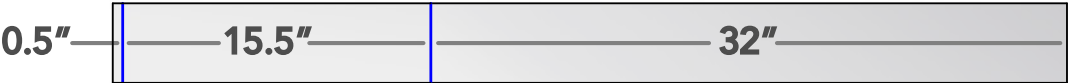
Now that all of the boards are separated, you should have at least three 2 x 4 pieces and anywhere from 8 to 10 slat pieces. It is important at this point to make sure all nails have been removed and there are not any dangerous splintered edges. I would recommend hitting every piece with a quick pass on an orbital palm sander. If you want a cleaner finish, feel free to pass the boards through a planer. If you would prefer a more natural rough aged finish, you can leave the boards as is. It is a question of personal aesthetics and comfort.



COMPONENT PREPARATION

STRAIGHT CUTS

STOCK 2 X 4 BOARDS AT AROUND 48 INCHES



STOCK 1 INCH THICK SLATS AT AROUND 36-38 INCHES



STRAIGHT CUTS

After disassembling your two pallets, you should be left with six 2 x 4 boards and roughly 16 to 20 one inch thick slats. Using your chop saw, cut each piece down to the measured length according to the graphic on the left. The listed dimensions are based on building a chair that is 20 inches wide. As always, feel free to adjust the dimensions as you see fit. I would recommend try building a chair with these dimensions first though, and then build another with any adjustments you want.

COMPONENT PREPARATION

IDENTIFYING PARTS



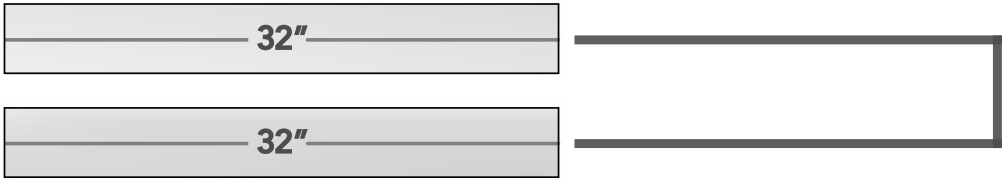
A

(2) LOWER SEAT RAILS



B

(2) FRONT CHAIR LEGS



C

(2) BACK REST RAILS



D

(1) REAR LEG SPACER



E

(2) BACK REST SUPPORTS



F

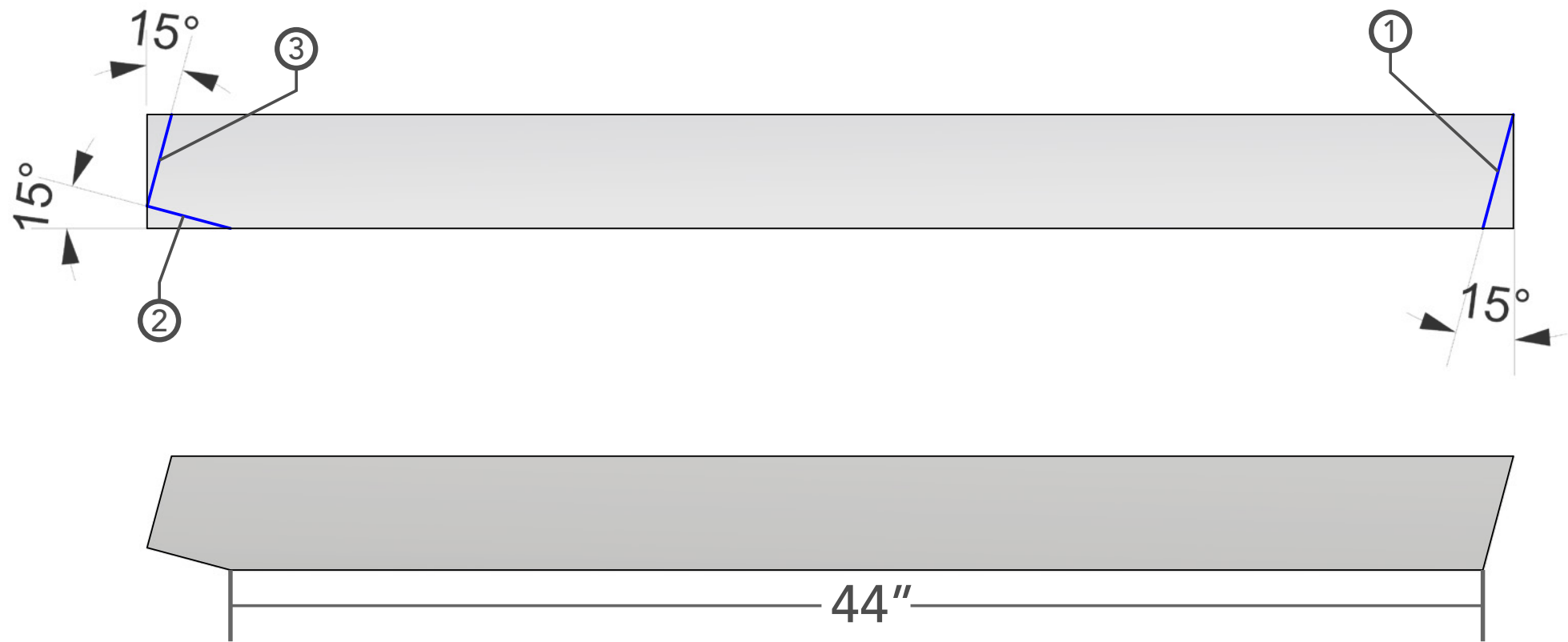
(10) CHAIR SLATS

IDENTIFYING PARTS

Once all of the straight cuts have been made with the chop saw, the following pieces should exist. This would be a good point to double check that you have enough good quality pieces from the two disassembled pallets to continue. Feel free to set aside the pieces in the order on the left. Label them if it will help you stay organized. The pages to follow will detail the angled cuts for each specific component.

COMPONENT PREPARATION

ANGLED CUTS

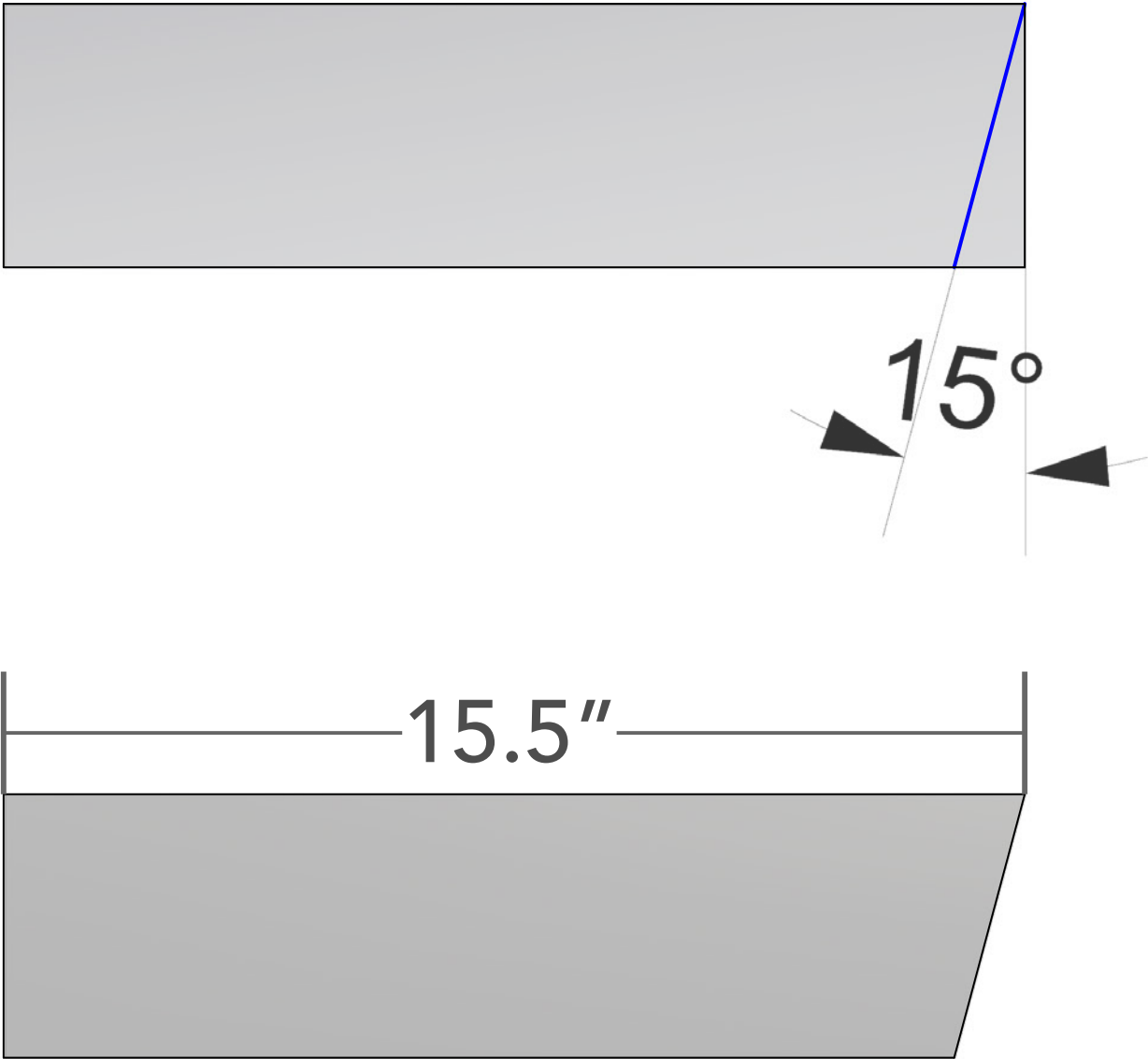


PART A: LOWER SEAT RAIL

Set your chop saw to a 15 degree angle and cut one of the ends so it has this new profile. Then measure 44 inches from the new edge and place a mark. With the saw still at 15 degrees, turn the board so it is perpendicular to the saw itself. This cut can be difficult to manage with one set of hands, so either grab a helper or set up a saw horse to balance the tail end of the board while you make the cut. The last cut is at 15 degrees as well. Place the board parallel with the chop saw again. This cut is purely for aesthetics, but try not to cut off too much of the last angle you cut. Repeat this for both lower seat rails.

COMPONENT PREPARATION

ANGLED CUTS



PART B: FRONT CHAIR LEG

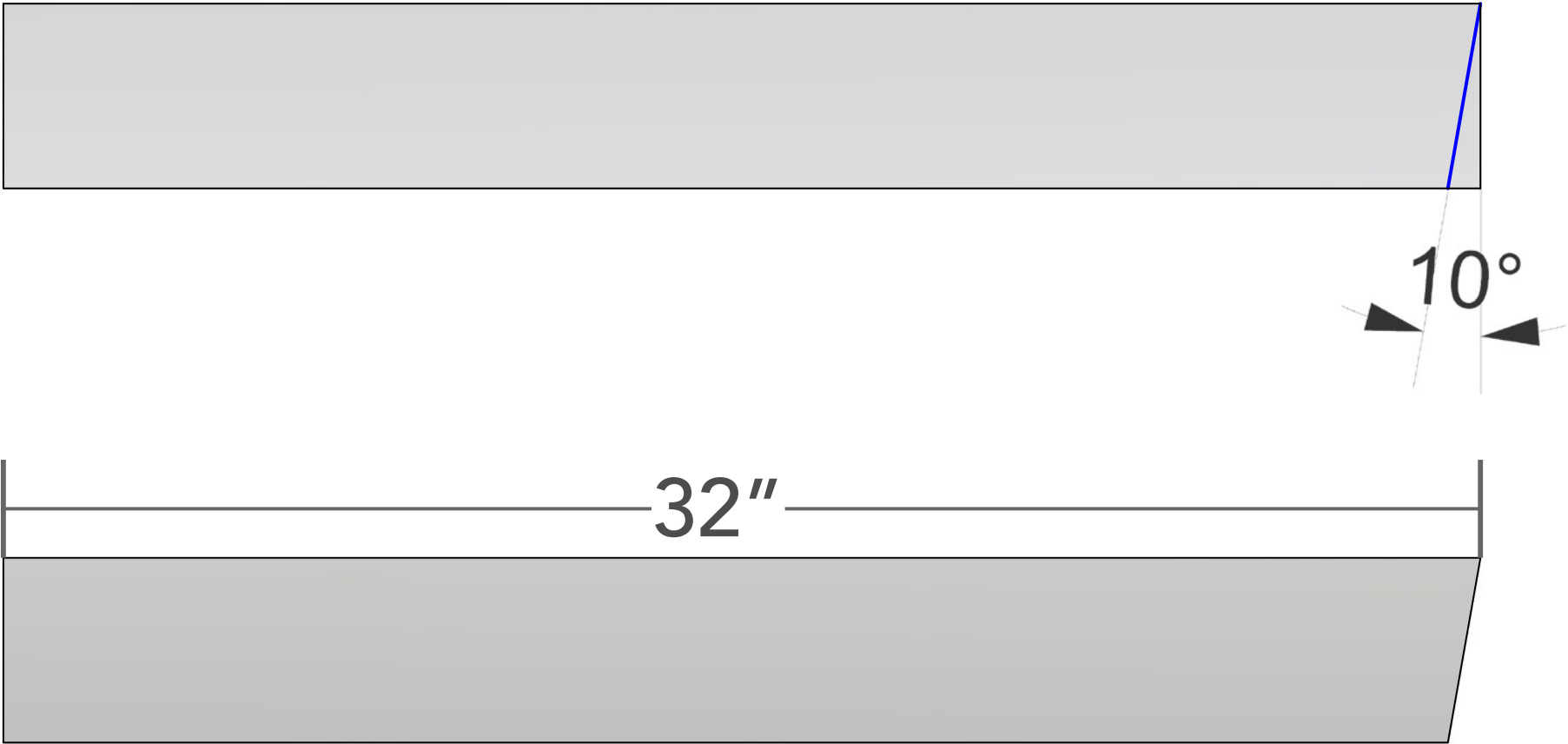
Set your chop saw to a 15 degree angle and cut one of the ends so it has this new profile. The overall length should still measure 15.5 inches. Repeat this for both front chair legs.

COMPONENT PREPARATION

ANGLED CUTS

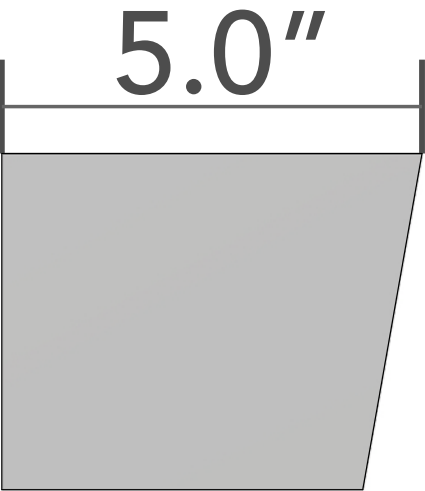
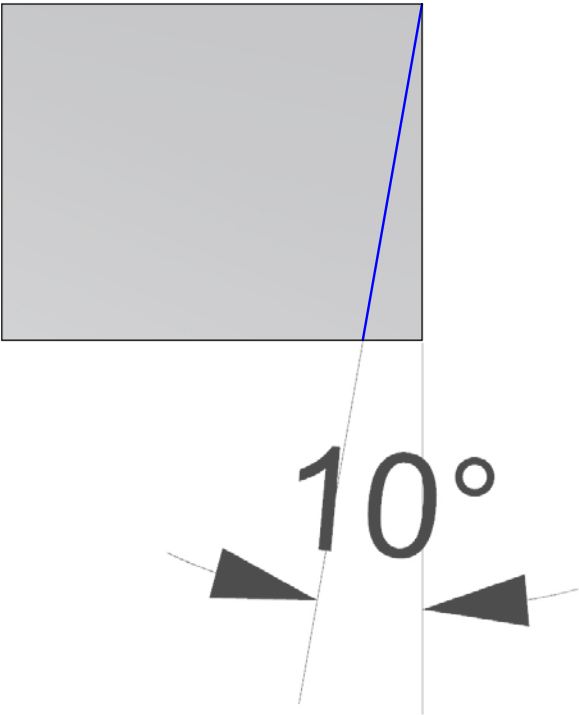
PART C: BACK REST RAIL

Set your chop saw to a 10 degree angle and cut one of the ends so it has this new profile. The overall length should still measure 32 inches. Repeat this for both back rest rails.



COMPONENT PREPARATION

ANGLED CUTS

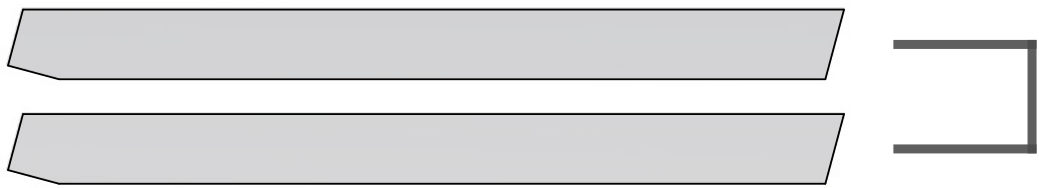


PART E: BACK REST SUPPORT

Set your chop saw to a 10 degree angle and cut one of the ends so it has this new profile. The overall length should still measure 5 inches. Repeat this for both back rest supports.

COMPONENT PREPARATION

FINAL PREPARATION



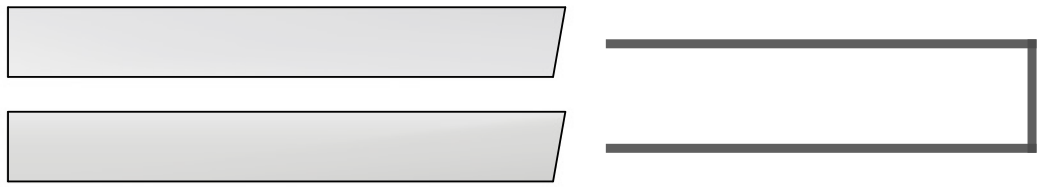
A

(2) LOWER SEAT RAILS



B

(2) FRONT CHAIR LEGS



C

(2) BACK REST RAILS



D

(1) REAR LEG SPACER



E

(2) BACK REST SUPPORTS



F

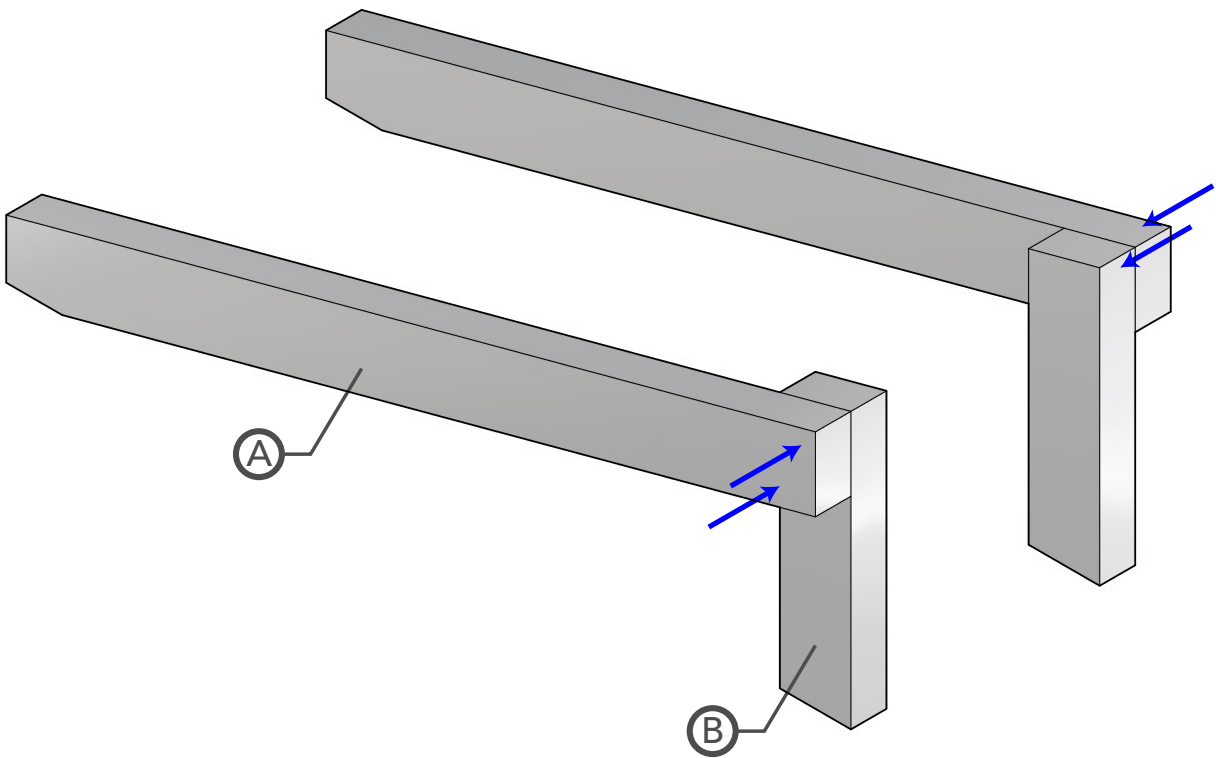
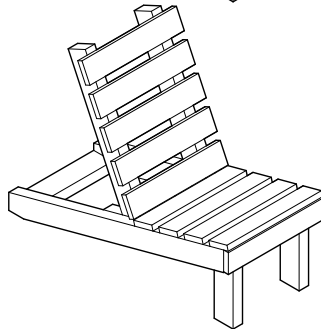
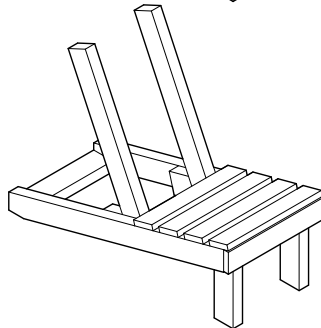
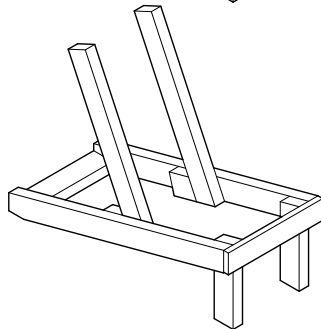
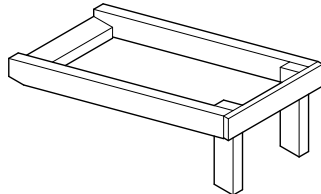
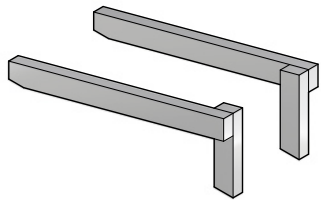
(10) CHAIR SLATS

FINAL PREPARED COMPONENTS

You should now have all of your chair components cut and ready to be assembled. Double check that you have all of the parts that are shown in the image to the left. Clear off a good size space. Grab your tape measurer, screws, and screw gun and get ready to build.

CHAIR ASSEMBLY

CONSTRUCTION INSTRUCTIONS

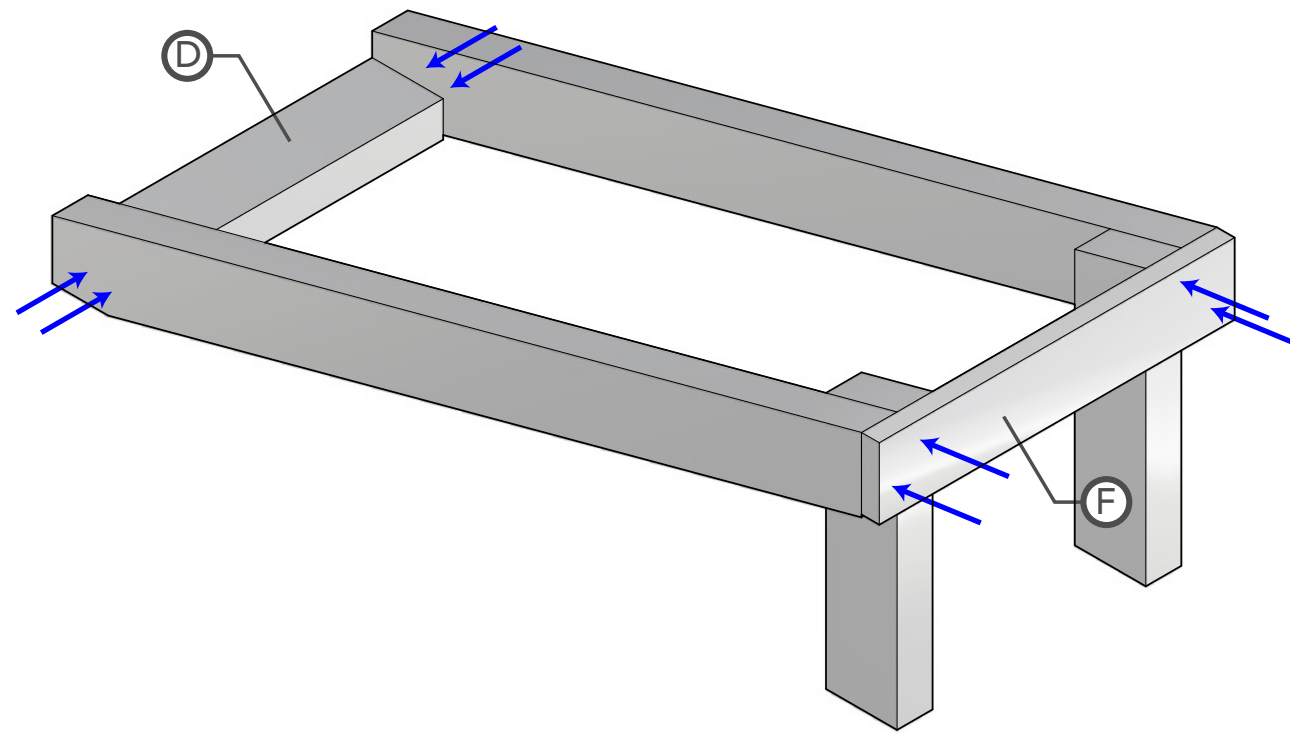
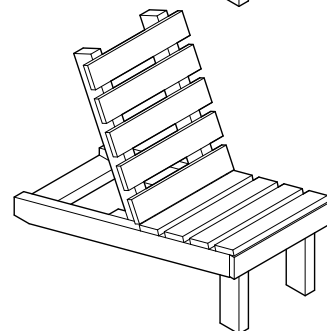
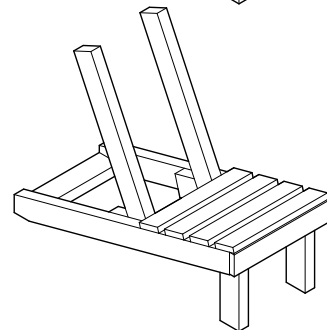
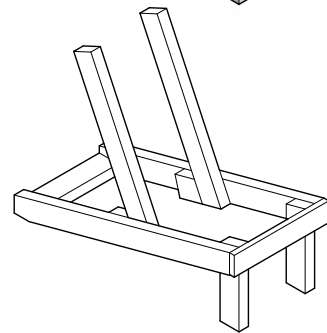
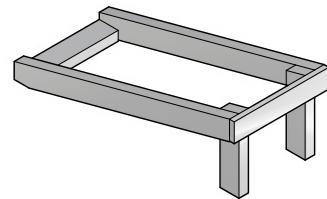
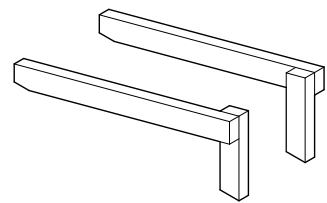


STEP 1: BUILDING BOTTOM LEGS

Grab one lower seat rail, part A, and one front chair leg, part B. Screw from the outside of part B into part A, similar to where the blue arrows are on the image to the left. It may help to square up the bottom of the legs against a scrap 2 x 4. Then repeat this with the other parts B and A, being sure to have the front chair leg on the opposite side of the lower seat rail.

CHAIR ASSEMBLY

CONSTRUCTION INSTRUCTIONS

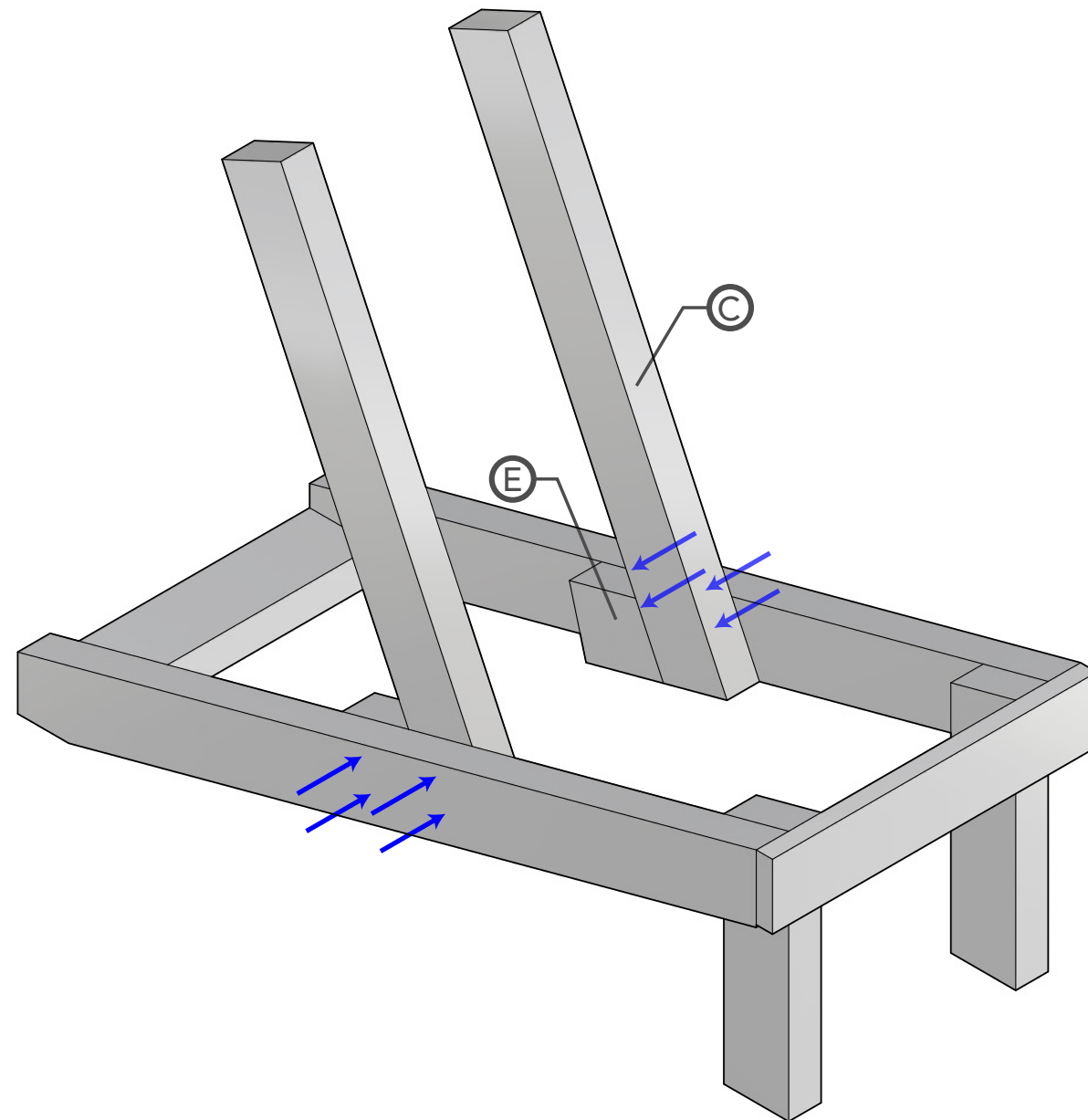
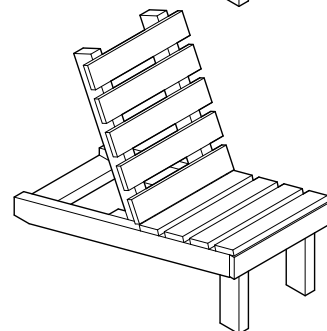
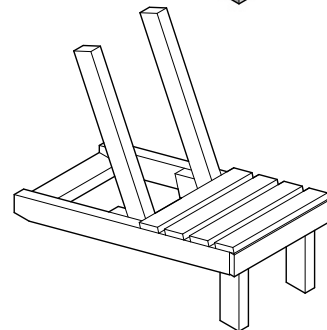
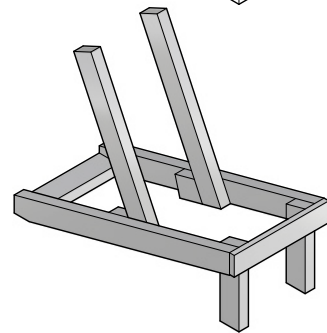
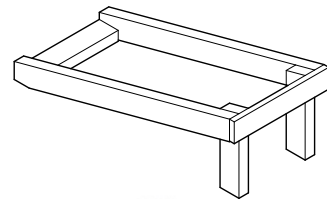
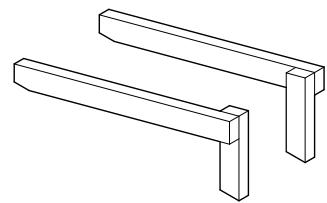


STEP 2: SQUARING UP THE BASE

Now that you have both chair legs assembled, it is time to complete the base of the chair. Grab part D, rear leg spacer, and place it between both upright legs as seen on the left. Screw two screws on each side. Once that is secure, grab one of your chair slats, part F, and put two screws on each side through the front edge of the chair legs. I would recommend trying to get a screw in both part A and B on each side. This chair slat should be flush with the outside edge of each chair leg. At this point you should have a sturdy squared up chair base.

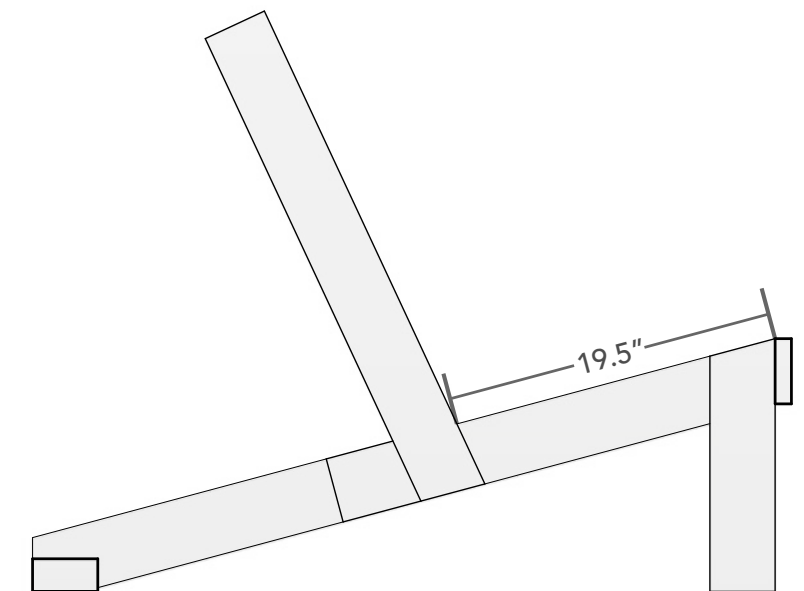
CHAIR ASSEMBLY

CONSTRUCTION INSTRUCTIONS



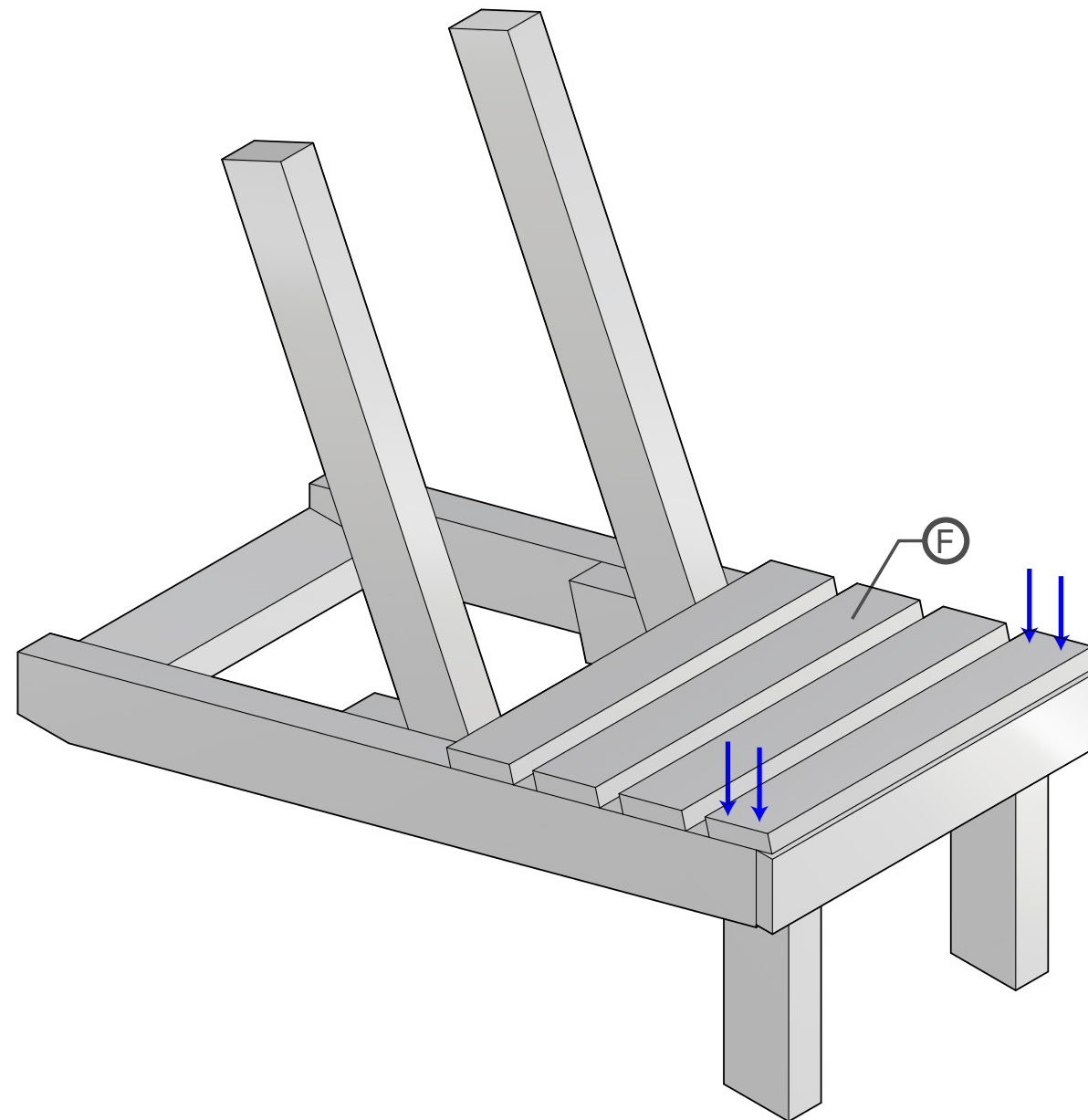
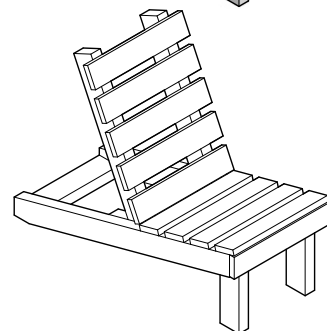
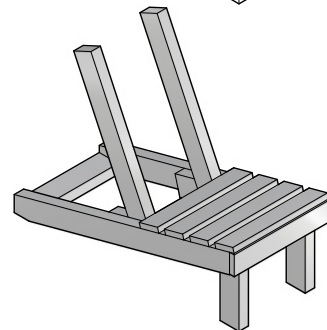
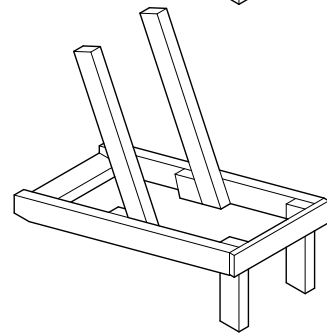
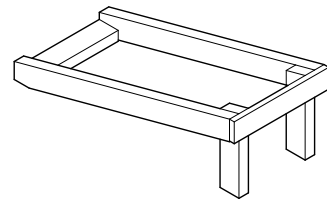
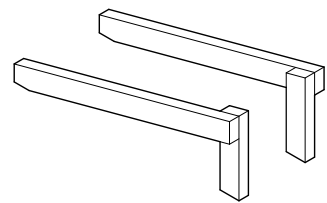
STEP 3: ADDING THE BACK REST

With the base of the chair all set up, it is now time to build the back rest. Locate parts C and E, your back rest rails and supports. I like my back rest positioned at around 19.5 inches from the front of the chair like the diagram below. I am also of the taller sort so find what is comfortable for you. Measure off and mark what seems right to you on each of the base legs. Screw in your back rest supports first, and then screw in the rails just in front of them. Remember to screw from the outside of the towards the inside. It is a small safety precaution, but it also makes for a cleaner looking chair in the end.



CHAIR ASSEMBLY

CONSTRUCTION INSTRUCTIONS

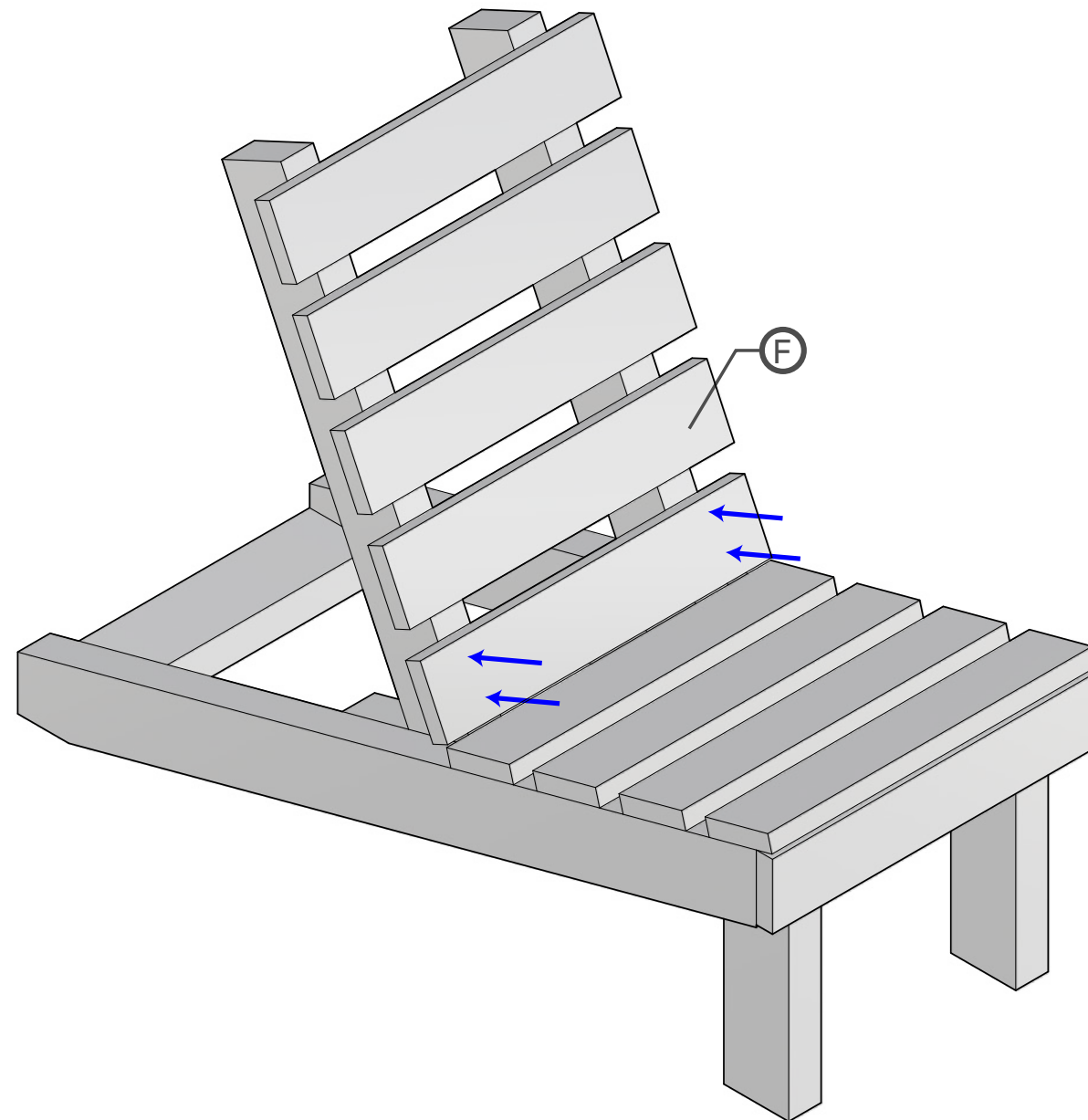
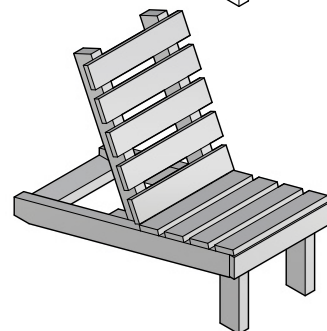
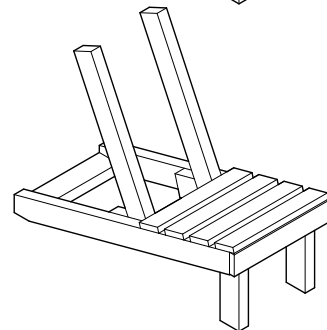
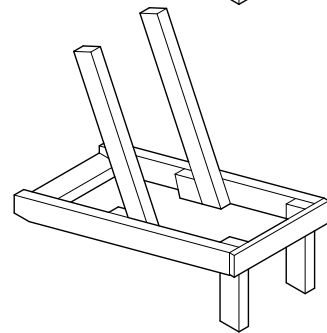
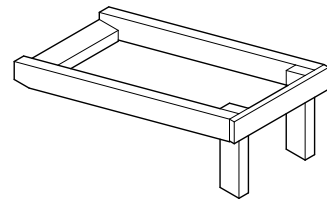
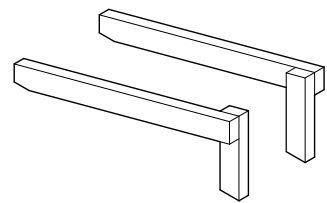


STEP 4: CREATING THE SEAT

The hard part of building your chair is finished. All that is left is to screw on the chair slats, part F. There is no right or wrong way to do this step. I have left no gap between the slats and I have built chairs with a small 1 inch gap. I find the latter makes for a lighter chair and has a more pallet-like feel, but make your chair your own. Build it how you see fit. Small caution, some of your chair slat pieces may be hardwoods. This may require you to predrill your holes with a 1/8 - 3/16 inch drill bit. If your screws are not going in, this is likely why.

CHAIR ASSEMBLY

CONSTRUCTION INSTRUCTIONS



STEP 5: FINISHING THE CHAIR

All that is left is to add the chair slats, part F, to the back rest of your chair and you will have your very own adirondack pallet chair. Be sure to realize the back rest rails are inset from the lower seat rails. Otherwise, you should be all set and ready to enjoy your custom made piece of furniture. Kick back for a barbecue, go chairbomb your closest downtown city, do what you may and keep building. Cheers.

CHAIR SAMPLES BY ADAM PARSONS

NATIONAL PARKLET DAY - BOSTON, MA

