



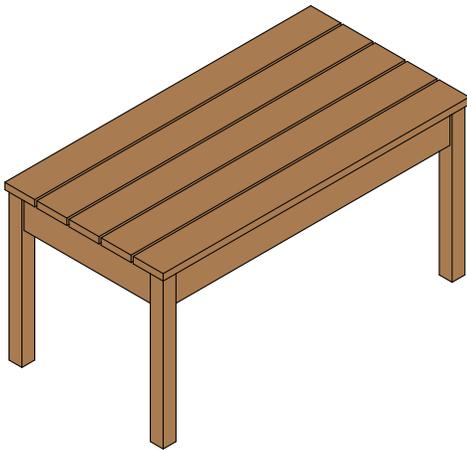
Chief's Shop: Simple Woodworking Bench

Be sure to read the instructions and review the illustrations and accompanying video for this project **BEFORE** you start. Follow **ALL SAFETY GUIDELINES AND RECOMMENDATIONS** provided by the manufacturers of your tools, and any chemicals such as glue and finishes you use in this project. **YOU** are responsible for your safety, so use common sense when working in the shop!

View the video at www.youtube.com/chiefchill.

Find more woodworking tips and ideas at www.chiefshop.wordpress.com.

Questions? E-mail Chief - chillchief@gmail.com



Materials

- One box of 1 1/4-inch coarse thread pocket hole screws
- 1 package of four nail-on furniture glides
- Wood glue
- Oil Stain
- Water-Based Polyurethane
- Paste Wax

Tools

- Miter (chop) saw, or a circular saw and straightedge, or a handsaw and miter box
- Drill/Driver and 1/16-inch bit
- Power sander or sandpaper
- Kreg Pocket Hole Jig with stepped drill bit and square drive bit

Lumber

- One - 1/4x3x2 poplar board
- One - 1x4x2 poplar board
- Four - 1x4x6 poplar boards
- Two - 2x2x36 poplar squares

- Kreg Right Angle Clamp
- Hammer or Rubber Mallet
- Measuring Tape
- Kreg Multi-Mark (optional)
- Pencil
- Paintbrush and rag/finishing cloth

Project Dimensions:

Width: 35 3/4 inches

Depth: 18 1/2 inches

Height: 18 inches

Estimated Cost: \$85

Lumber: \$55*

Materials: \$30**

*For poplar. The cost will vary depending on your location and where you shop.

**This assumes you buy everything on this list. Save money and wasted supplies by using what you already have in your shop first.

Figure 1

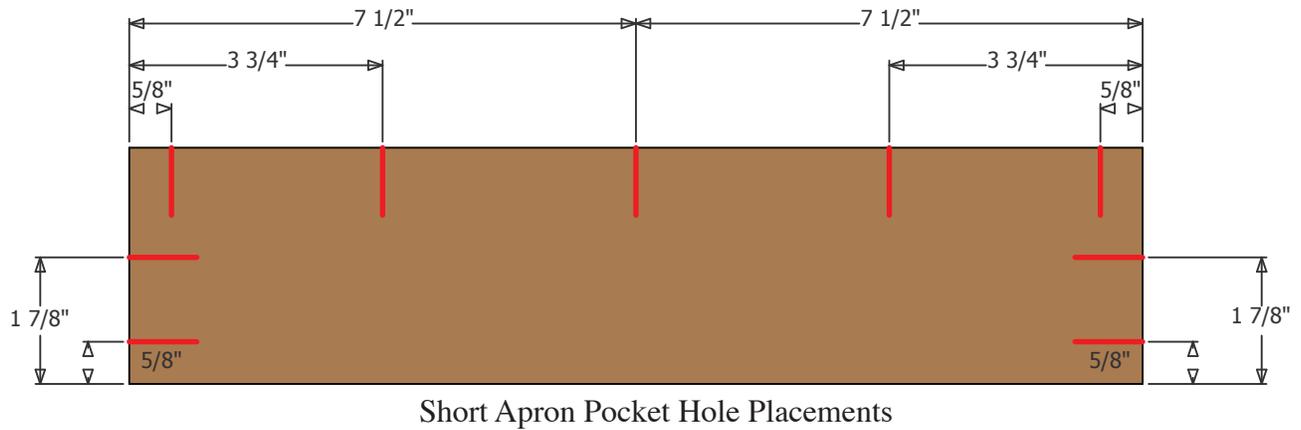
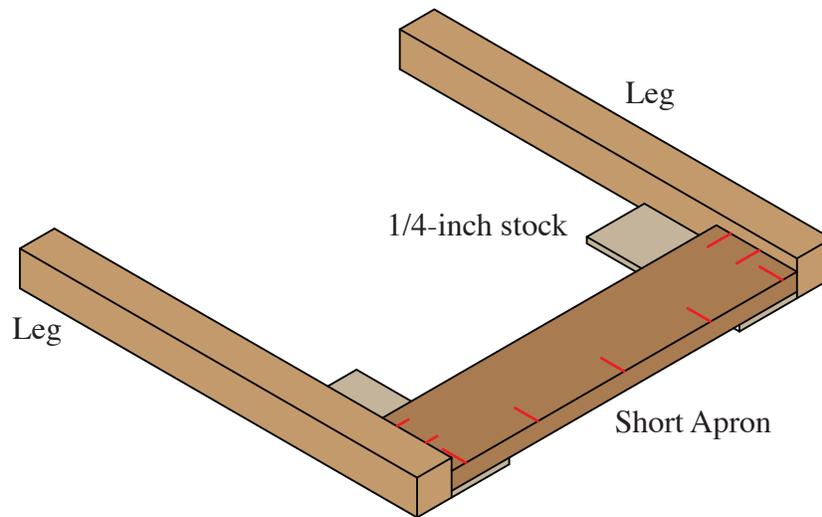


Figure 2



- Measure and mark the **Legs** and cut them to length.
- Measure and mark the **Short Aprons** and cut them to length.
- Measure and mark the pocket hole placements on the **Short Aprons**. See **Figure 1**.
- Drill the pocket holes on the **Short Aprons**.
- Place a section of 1/4-inch stock flush with the ends of two **Legs** as shown in **Figure 2**. Apply glue evenly to the ends of a **Short Apron** and place it flush with the ends of the **Legs** as shown in **Figure 2**. Clamp in place using a right angle clamp (see video) and attach the **Short Aprons** to the **Legs** using glue and pocket hole screws. Repeat to create a second assembly using the remaining **Legs** and **Short Apron**.

Figure 3



Long Apron Pocket Hole Placements

Figure 4

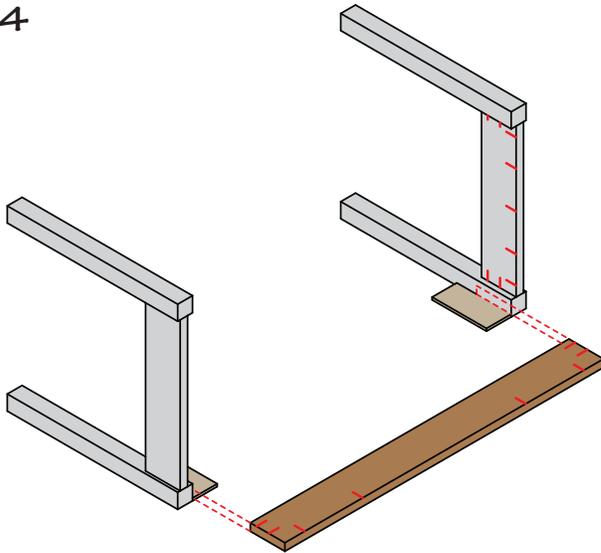
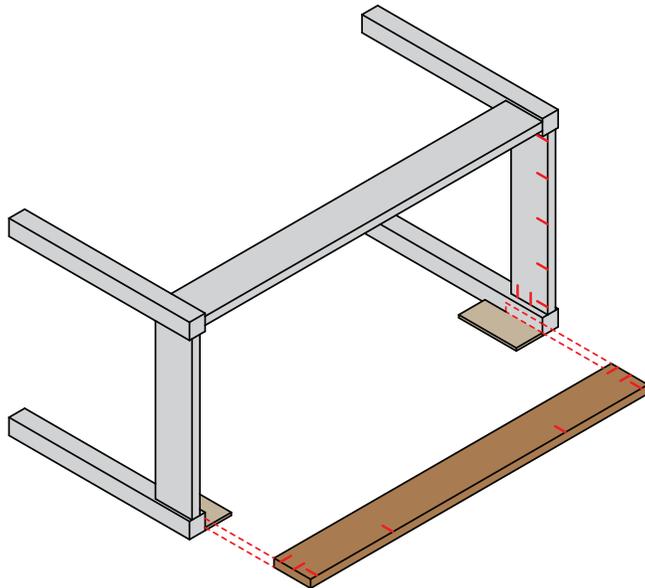


Figure 5



- Measure, mark and cut the **Long Aprons**. Measure and mark the pocket hole placements as shown in **Figure 3**. Drill the pocket holes.

- Use the same steps used to attach the **Short Aprons** to attach the **Long Aprons** and refer to **Figures 4 and 5**.

- Place the assembly with the **Aprons** up and measure diagonally across the assembly across the four corners. You want the measurements to be the same (or at least within 1/16-inch). If not, you can either use a large clamp or temporary bracing (a piece of scrap wood attached across the corners) to hold the assembly in place and square until the glue dries. Keep the temporary bracing or clamp in place until after you've attached the **Stretcher**.

Figure 6

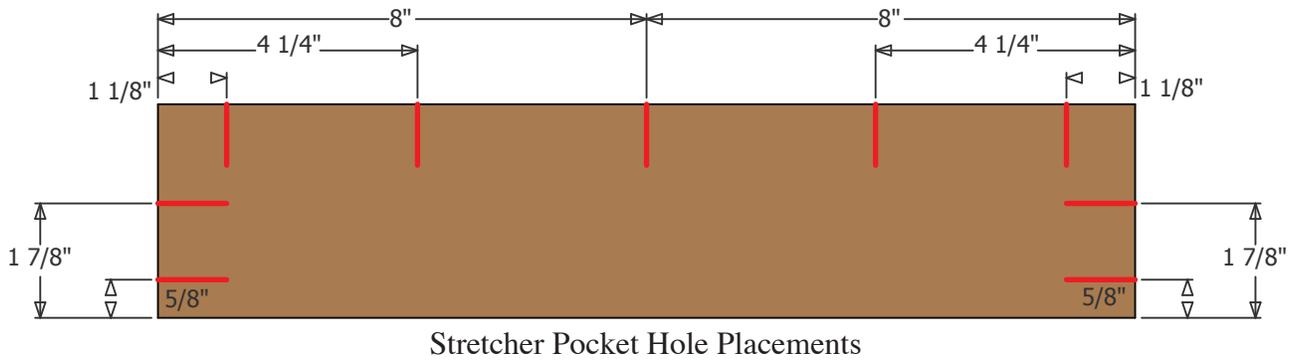
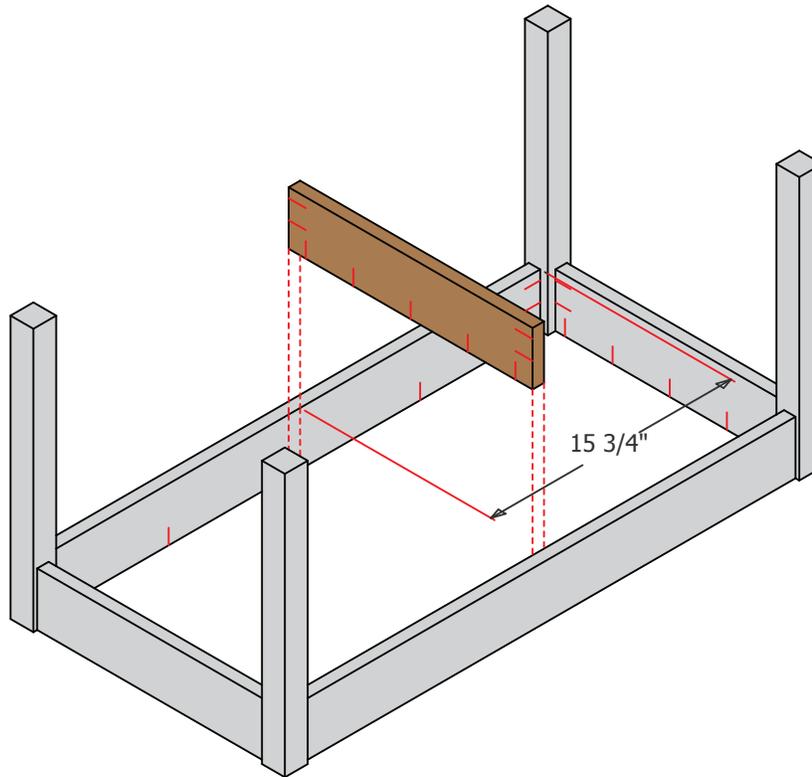


Figure 7



- Mark a centerline on **Long Aprons** for the **Stretcher**. Or you can measure 15 3/4 inches from one end of the **Long Aprons** and use that reference mark.
- Measure the distance between the two **Long Aprons** where they meet the **Legs**. Check this measurement against the measurement in the **Part Dimension List (Page 7)** for the **Stretcher**. If it's not the same, cut the **Stretcher** to match the distance you measured.
- Measure, mark, and cut the **Stretcher**. Mark the pocket hole placements as shown in **Figure 6**. Drill the pocket holes.
- Position the **Stretcher** as shown in **Figure 7** and attach it to the **Long Aprons** using glue and pocket hole screws.

- Place two **Seat Slats** on worktable and place assembly on top of them.

- Use a piece of 1/4-inch stock (poplar) to position these **Seat Slats** to extend past the outer edges of the legs by 1/4 inch, as shown in **Figure 8**.

- Attach these seat slats to the **Aprons** and **Stretcher** using pocket hole screws only.

- Place the remaining **Seat Slats** underneath the assembly. Working your way from the outside slats to the center, place the 1/4-inch stock between the **Slats**, position the ends of the **Slats** flush (even) with the other **Slats** (as shown in **Figure 9**), and attach to the **Aprons** and **Stretcher** using pocket hole screws (see video).

- Use a straightedge, square or Kreg Multi-Mark to mark a center point on the bottom of the **Legs**. Draw a line across each diagonal to find the center point (see video).

- Drill a pilot hole for the furniture glides (1/16-inch bit or smaller) on this center point. Lightly tap them in with a hammer or rubber mallet (see video).

Figure 8

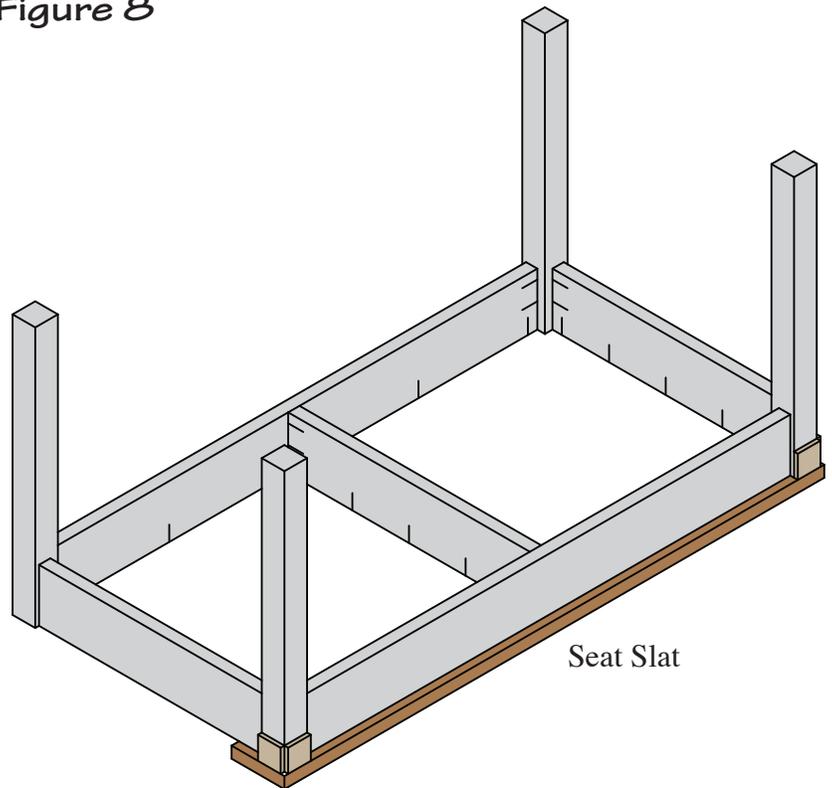
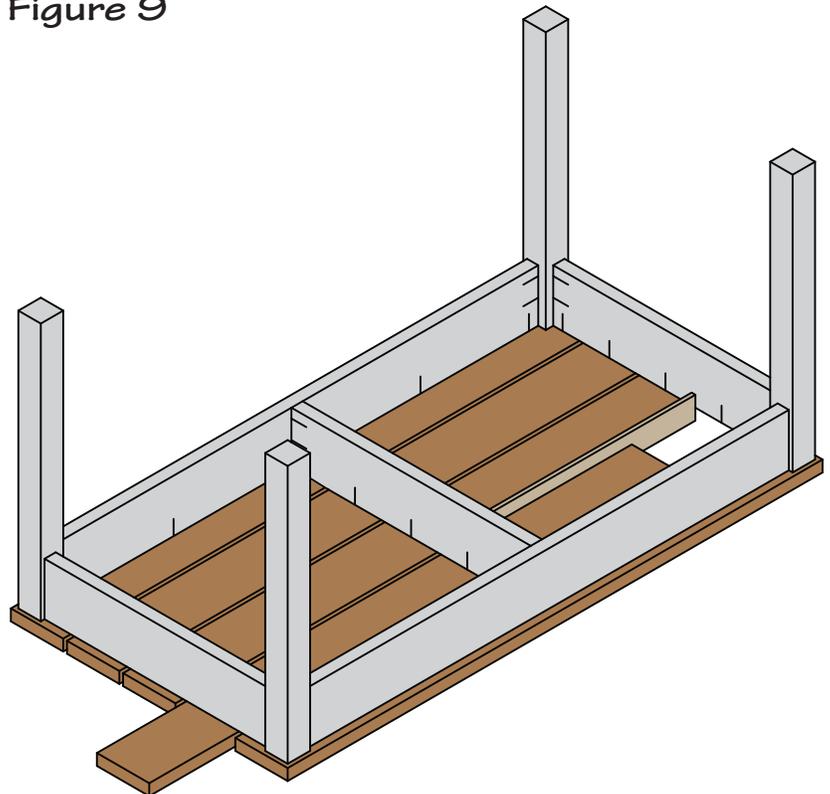
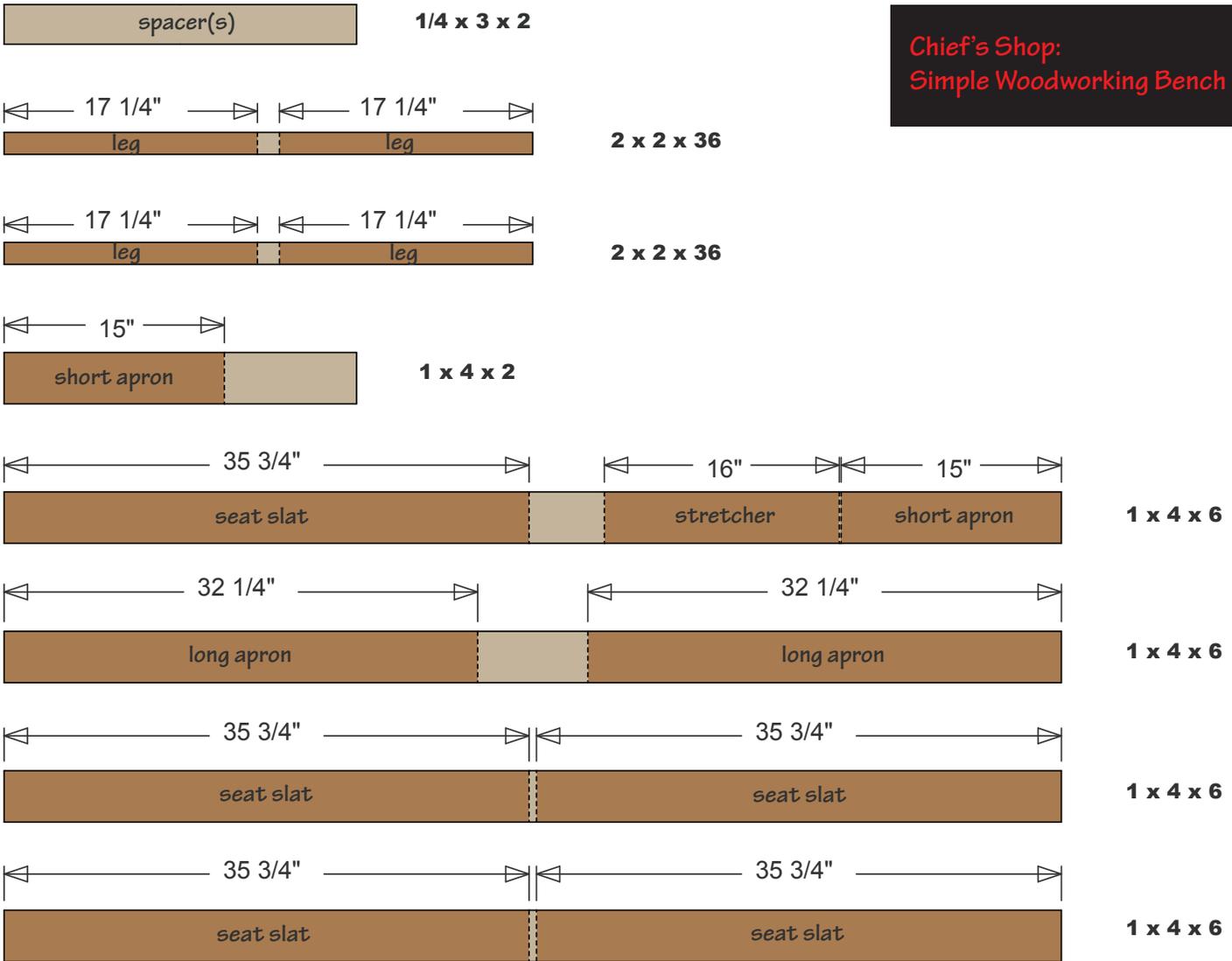


Figure 9





- Sand the assembly as desired, starting with a coarse grit sandpaper and finishing with a fine grit (220). Be sure to sand smooth any rough or sharp edges.
- Wipe off any sawdust or debris and apply an oil stain. For this project I used Cabot Gunstock. Use an artist brush to apply stain between the seat slats and any other hard to reach area, such as the pocket holes. I prefer to apply the stain in wide areas using a finishing cloth (or a strip of an old t-shirt), and then wipe/work it in with a separate cloth.
- Allow the stain to dry per the manufacturer's directions.
- Apply a coat of water-based polyurethane using a nylon-bristle paintbrush. Allow it to dry per the directions.
- Use steel wool or 220-grit or higher sandpaper and lightly sand the project. Wipe it down with a cloth.
- Apply a coat of paste wax using a cloth. I prefer to immediately buff it instead of waiting the manufacturer's recommended time, but do allow it to dry the recommended time before using the bench.



Part Dimension List

Part	Dimension	Lumber	Quantity
Leg	1 1/2 x 1 1/2 x 17 1/4	2 x 2 x 36	4
Short Apron	3/4 x 3 1/2 x 15	1 x 4 x 2, 1 x 4 x 6	2
Long Apron	3/4 x 3 1/2 x 32 1/4	1 x 4 x 6	2
Stretcher	3/4 x 3 1/2 x 16	1 x 4 x 6	1
Seat Slat	3/4 x 3 1/2 x 35 3/4	1 x 4 x 6	5