



Maumee Valley
Habitat
for Humanity®
mvhabitat.org

"A PLACE TO GATHER" PICNIC TABLE

Materials Needed:

1. 2x6x8' (Qty: 1)
2. 2x4x8' (Qty: 7)
3. 3/8" diameter x 3 1/2" long galvanized carriage bolt (Qty: 12)
4. 3/8" galvanized flat washer (Qty: 12)
5. 3/8" galvanized nut (Qty: 12)
6. 2 1/2" long deck screws (Qty: 1 pound)
7. Exterior Primer/Paint or Exterior Stain or Treated Lumber

Tools Needed:

1. Miter Saw or Circular Saw
2. Drill
3. Screwdriver Bit
4. 1/8" & 3/8" Drill Bit
5. 9/16" Socket w/ Ratchet or 9/16" Open-Ended Wrench
6. Sandpaper
7. Pencil
8. Measuring Tape
9. Speed Square or Ruler/Straight Edge
10. Safety Glasses
11. Work Gloves
12. Paint Brush or Paint Roller (optional)
13. Putty and Putty Knife (optional)
14. Caulk and Caulk Gun (optional)
15. Woodworking Clamps (optional)

Grade Level: 9-12

Project Time: 2-3 hours + Paint or Stain Time



How this helps Maumee Valley Habitat for Humanity:

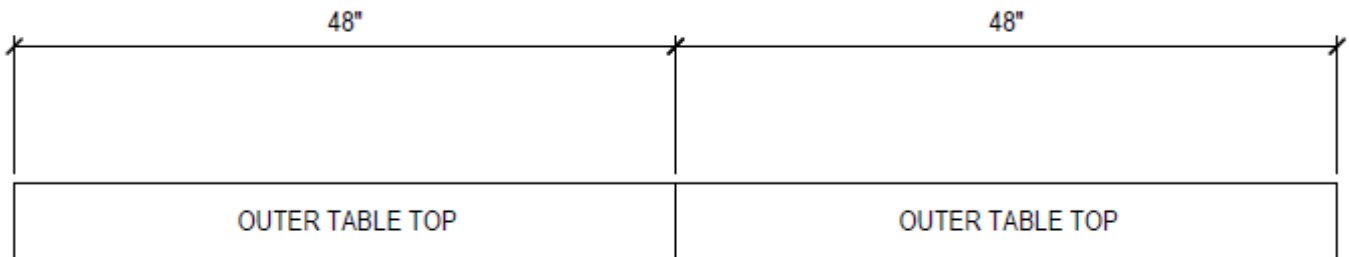
The "A Place To Gather" Picnic Table will be donated to Future Homeowners, placed in community gardens in Lucas County and/or sold in our ReStore. THANK YOU for making a difference.

Questions about this activity? Please contact our Volunteer Manager at dhammer@mvhabitat.org

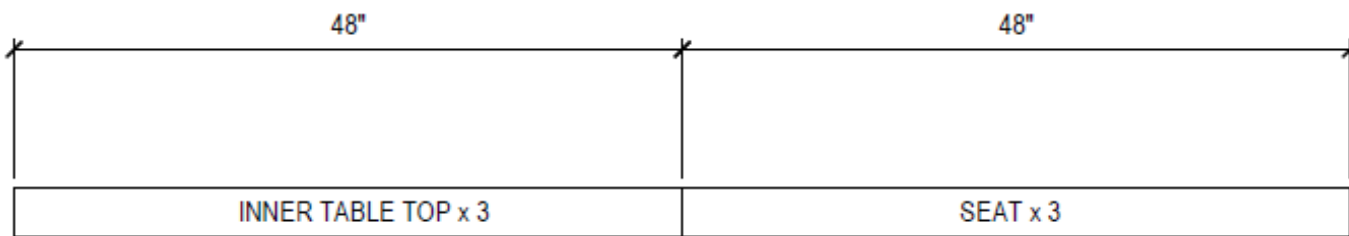


Instructions:

1. Before starting, carefully read through all the instruction.
2. Gather materials and cut boards to appropriate length.
3. Table Tops:
 - a. Sort one 2x6x8' piece from your lumber.
 - b. Measure and mark two 48" pieces (centered) and then cut.



4. Table Tops & Seats:
 - a. Sort three 2x4x8' pieces from your lumber.
 - b. Measure and mark two 48" pieces (centered) from each and then cut.

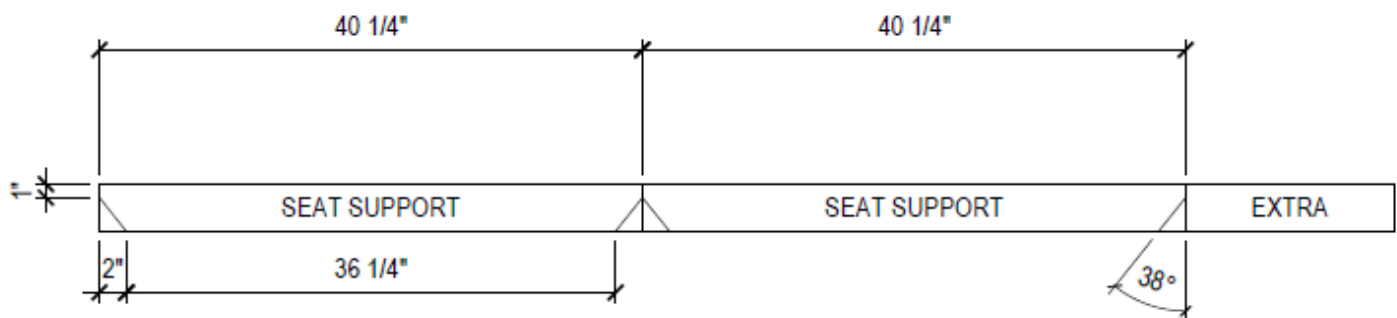




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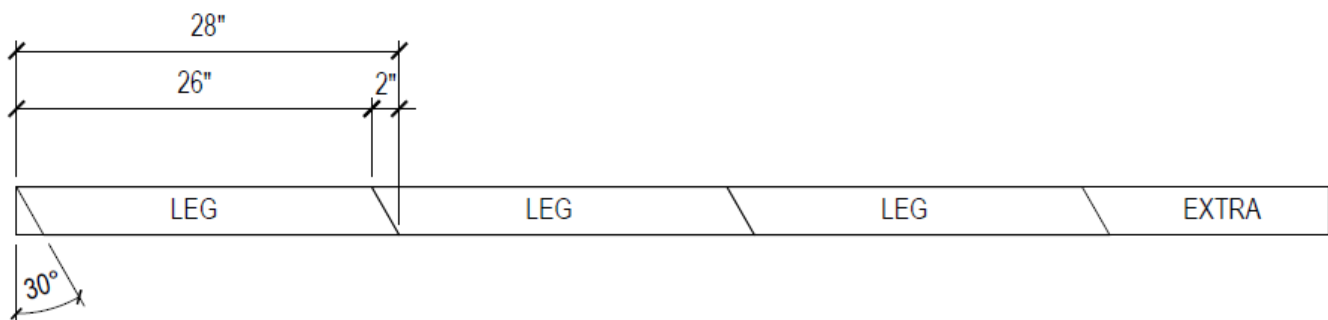
5. Seat Supports:

- Sort one 2x4x8' from your lumber.
- Measure and mark two 40 1/4" pieces and then cut.
- From both ends of each 40 1/4" pieces, measure down 1" from the top corner and 2" across from the bottom corner. Connect the two marks with a line and cut at approximately a 38-degree angle to make the illustrated trapezoid.



6. Legs:

- Sort one 2x4x8' from your lumber.
- Measure and mark 2" from the bottom edge and draw a line up to the top edge at approximately a 30-degree angle. Measure and mark 28" on the bottom edge and 26" on the top and draw a line between them at approximately 30 degrees.
- Cut the two lines drawn and both the top and bottom should be 26" long.
- Use the cut leg as a template and trace on the rest of the 2x4 to cut out two more leg pieces.

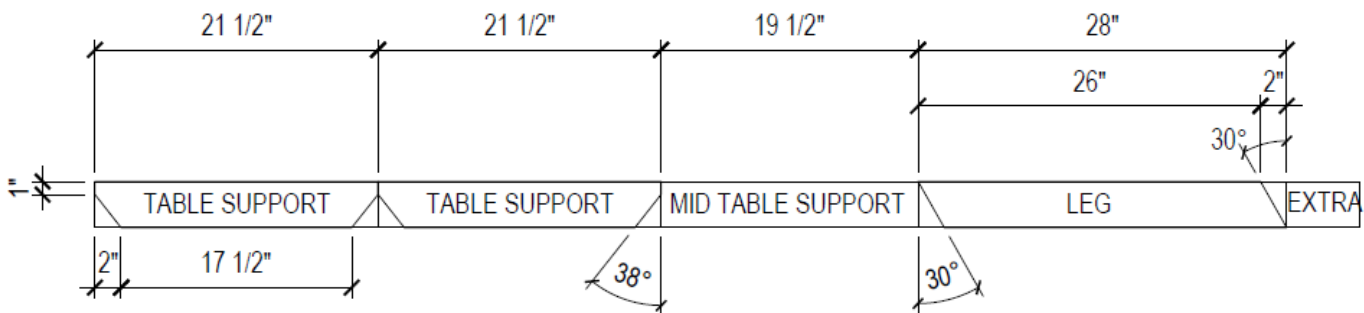




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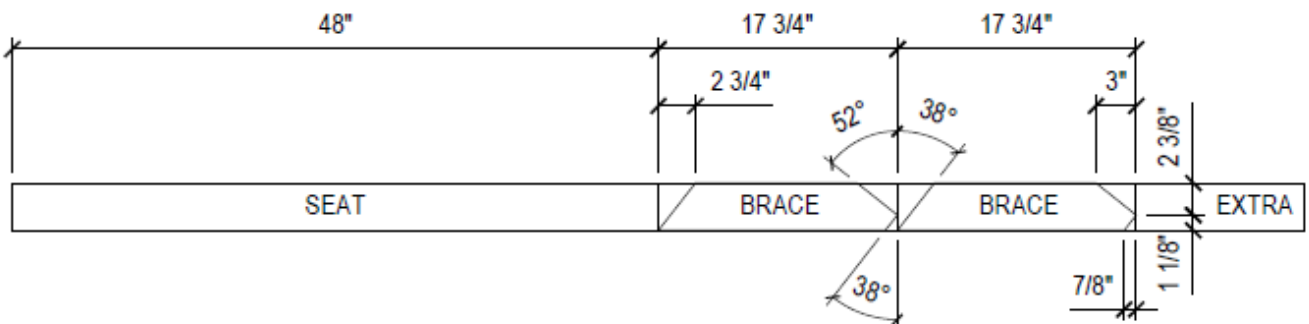
7. Legs and Table Supports:

- Sort one 2x4x8' from your lumber.
- Use one of the legs from the previous step as a template to trace and then cut an additional leg from this 2x4.
- Measure and mark two 21 1/2" pieces and one 19 1/2" piece and then cut.
- To make the two 21 1/2" trapezoids, measure down 1" from the top corner and 2" across from the bottom corner. Connect the two marks to create a guide and cut at approximately a 38-degree angle. Do this on both ends of both table support pieces.



8. Seat and Braces:

- Sort one 2x4x8' from your lumber.
- Measure, mark, and cut one 48" piece and two 17 3/4" pieces using a 90-degree cut.
- To make the 17 3/4" shapes, measure 2 3/4" from the top left corner and draw a line from there to the bottom left corner. Cut along this line at approximately a 38-degree angle.
- Measure and mark 1" across on the bottom from the right corner and up from the bottom right corner 1 1/8" and draw a line between the two points. Cut along this line at approximately a 38-degree angle.
- Measure and mark 3" over from the top right corner and draw a line down to the cut edge on the end (2 3/8" down from the top right). Cut along this line at approximately a 52-degree angle.



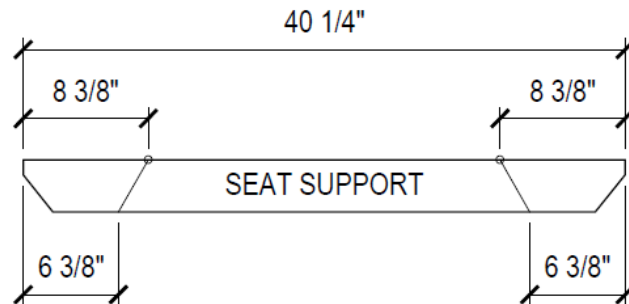
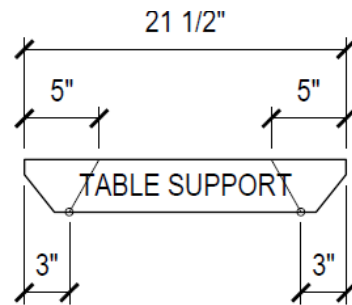
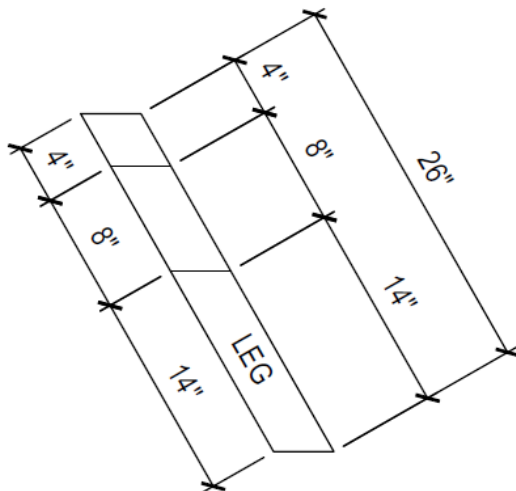
Instructions:

9. Paint or Stain all cut lumber and allow proper time to dry.

Assembly of Picnic Table:

10. Prepare the "A" Frames:

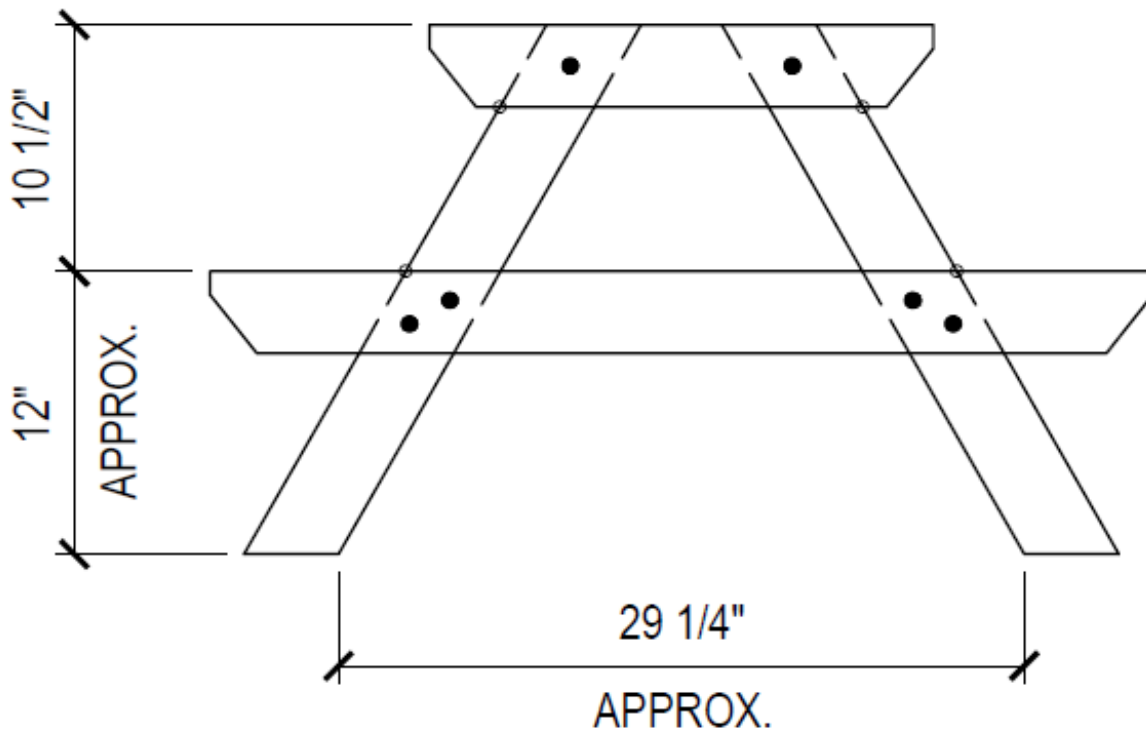
- Locate the pieces for the "A" frame and mark the pieces as illustrated below.
- On the legs, measure 4" from both sides of one end and draw a line between the points. From that line, measure down 8" and draw another line.
- On the table supports, make a mark 5" in from the ends on the top side of the trapezoid, and 3" in on the bottom side. Join the two marks with a line as shown.
- On the seat supports, make a mark 8 3/8" in from the ends on the top side of the trapezoid, and 6 3/8" in on the bottom side. Join the two marks with a line as shown.



Instructions:

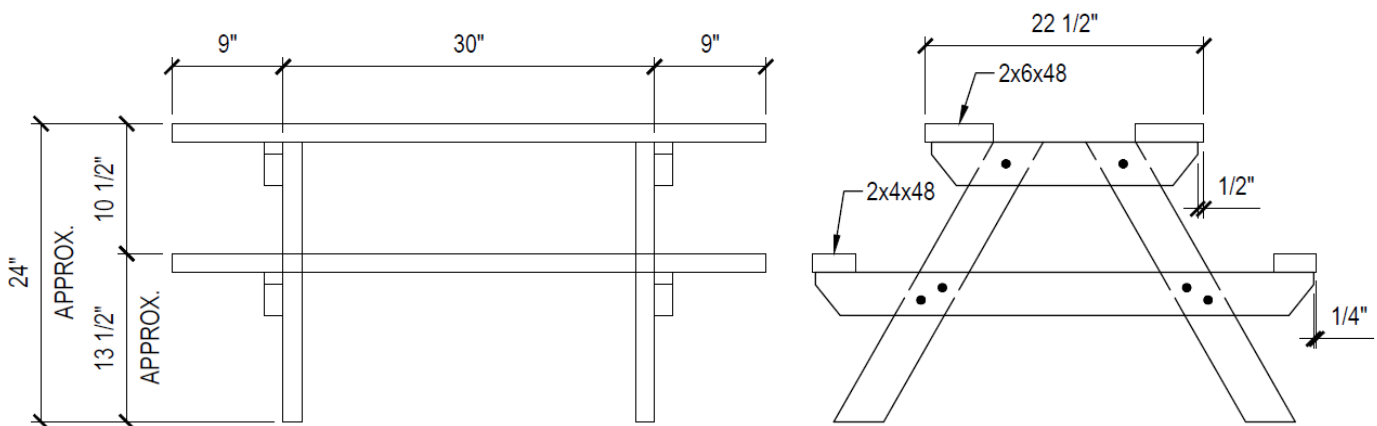
11. Assemble the "A" Frames:

- a. Assemble the "A" frames by aligning the table and seat supports along the lines you just drew on the legs as shown below. The top of the legs should be flush with the top of the table support. Attach each intersection with 2 screws, then drill pilot holes for the carriage bolts as shown. Attach carriage bolts. The head of the carriage bolt should enter through the side of the seat and table supports and then through a washer and nut on the inside. Note: Always use safety glasses when drilling. Make sure the bolts are staggered as shown by the dots.

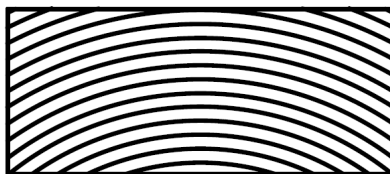


Instructions:

12. Stand up the two "A" Frame sides, making sure the carriage bolt heads are towards the outside and the nuts are towards the inside. Connect the two frames with the two outer table top pieces (2x6x48") and two outer seats (2x4x48"), leaving a distance of 9" from the ends of the seat and the table top pieces to the legs as shown on the diagram below. Be sure to plumb the "A" frames as you install the boards so that everything fits tight and flush.
13. Screw the seat and table top boards to each leg frame. Be sure the seat and table tops extend 1/4" past the edges of the "A" frames as shown on the diagram below.



Note: Attach the seat and table top boards with the grain oriented as shown in Detail 1 below. Lumber tends to warp away from the center of the tree. This orientation will ensure the wood cups down if it warps to prevent puddles on the wood.

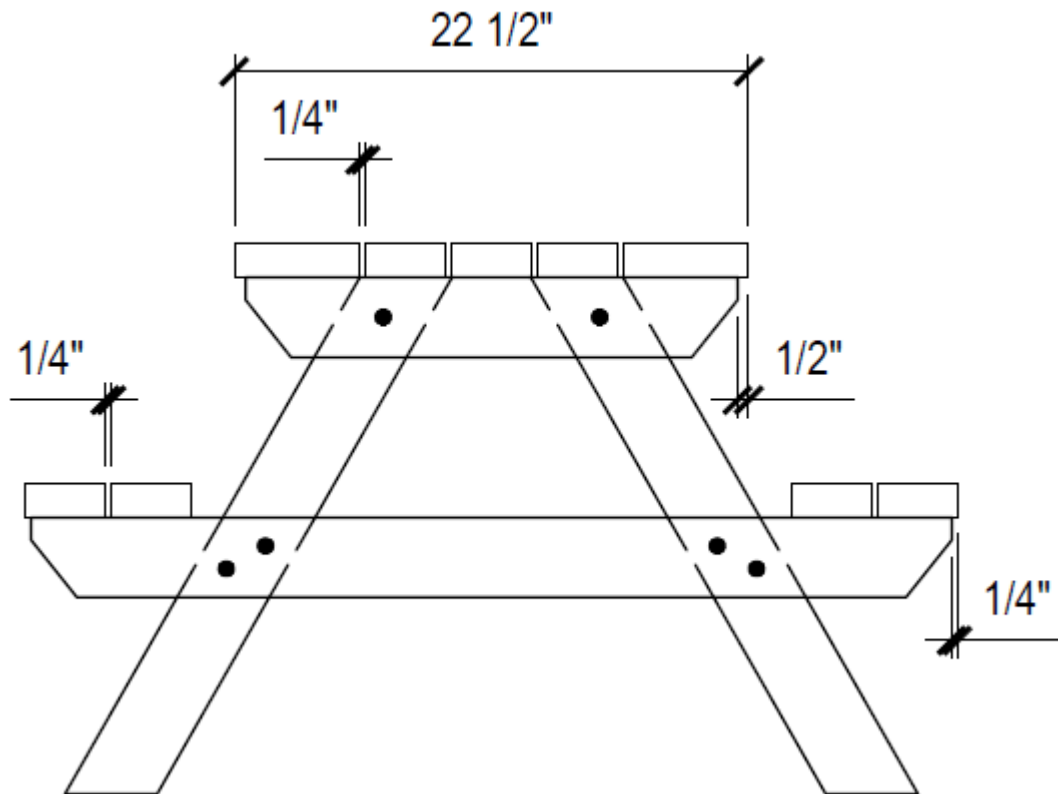


DETAIL 1



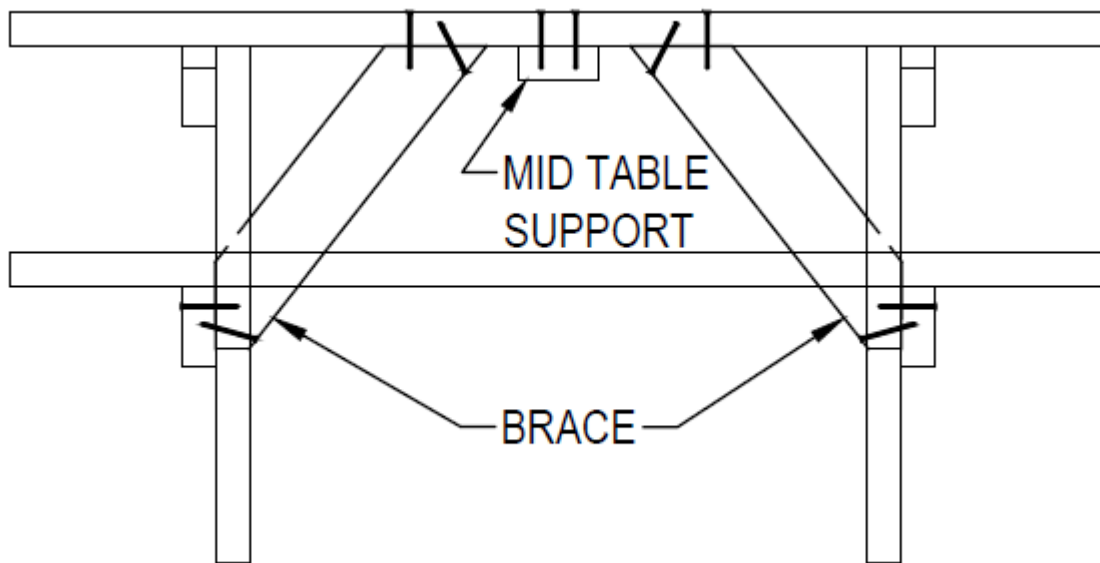
Instructions:

14. Attach the rest of the table top and seat boards leaving approximately a 1/4" gap between boards or an even distance. Be sure to pre-drill pilot holes to avoid splitting the wood.



Instructions:

15. Attach the Mid Table Support (2x4x19 1/2") exactly in the middle of the table, halfway between the "A" frames. Attach the support by screwing down through the table top boards as shown below. Be sure to pre-drill pilot holes to avoid splitting the wood.
16. Attach the two diagonal braces in the middle of the center table top board and the "A" frames as shown below with two screws at each end. Be sure to pre-drill pilot holes to avoid splitting the wood.



17. Set the table on a level surface to verify that it is not wobbly or uneven. If it is, you may need to sand down one of the legs to fix this.
18. Verify that all the screws are sunk into the wood and are not sticking out of the wood. If you painted the table, you can putty or caulk over the screws and touch up paint after those are dried and sanded. If you stained the table, touch up any areas as needed.
19. Clean up your work area and your Picnic Table is complete! Thanks for all your hard work!