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47-54 Chevy Pickup Frame Rails  
4-Link Rear suspension  
Radiator Support  
Center Brace  
Rear Brace

## Assembly of Speedway Motors 47-54 Chevy Pickup Chassis

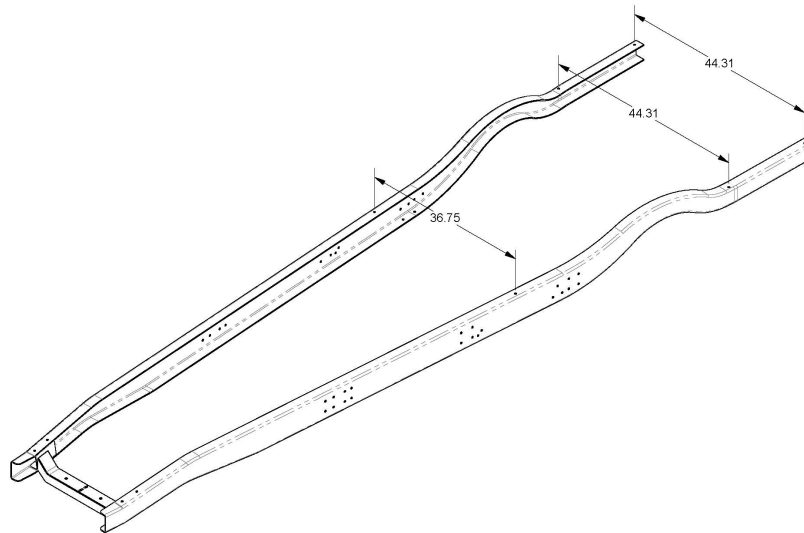
**PLEASE READ INSTRUCTIONS COMPLETELY BEFORE STARTING YOUR INSTALLATION**

1. You will need to set up the chassis dimensionally and then check for squareness. Set the frame rails up vertically on a flat surface.

### Radiator Support

2. Bolt the radiator support into the upper flange of the frame rail of the chassis using the 3/8"-16 x 1" bolts and nylock nuts but do not fully tighten.

3. We now need to set the rails at the correct width. You will need a couple pieces of angle iron to temporarily tie the rails together. We found that 1" angle iron works well for this. Set the frame rails up to the correct width using the measurements from illustration #1. Measuring from the hole in one frame rail to the hole in the opposite frame rail. Using the angle iron you can clamp the rails into position or we found it was easier if you drill a couple of 3/8" holes in the angle iron at the correct widths (one at 36-3/4" and two at 44-5/16") and then bolting them to the top of the frame rails using the 3/8"-16 x 1" bolts and nuts. This will keep the rails at the correct width and keep them from moving before installing your cross braces.

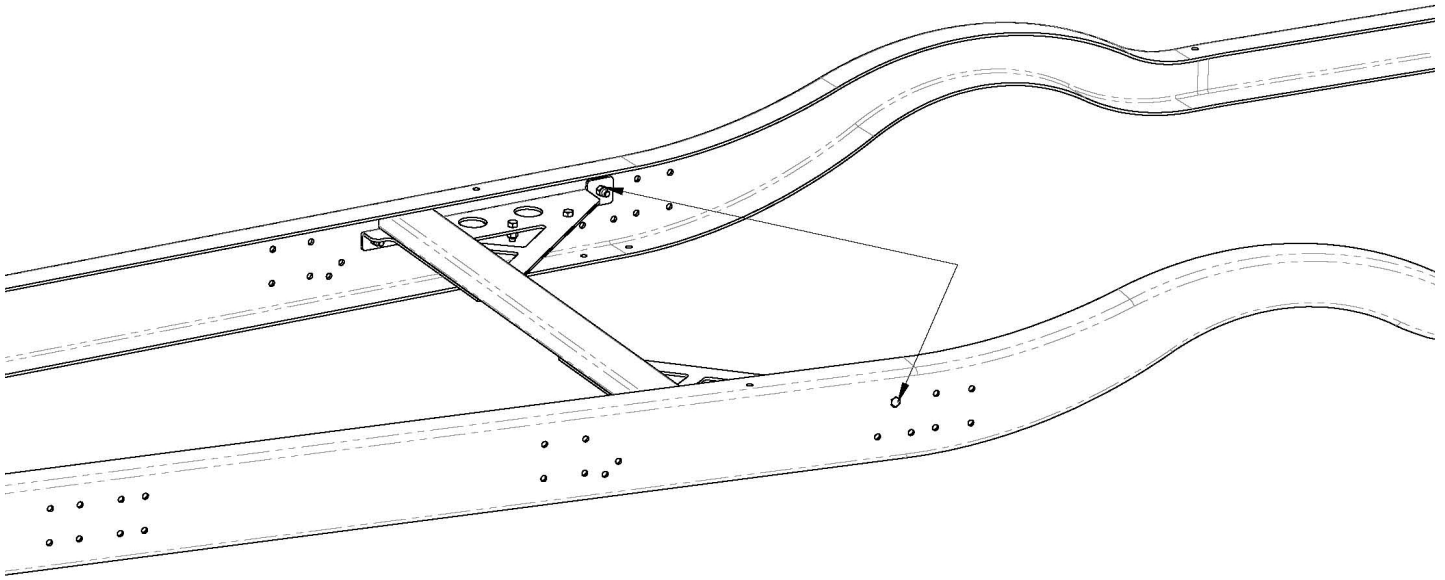


4. The chassis can now be moved to a more comfortable working height and put on jack stands.

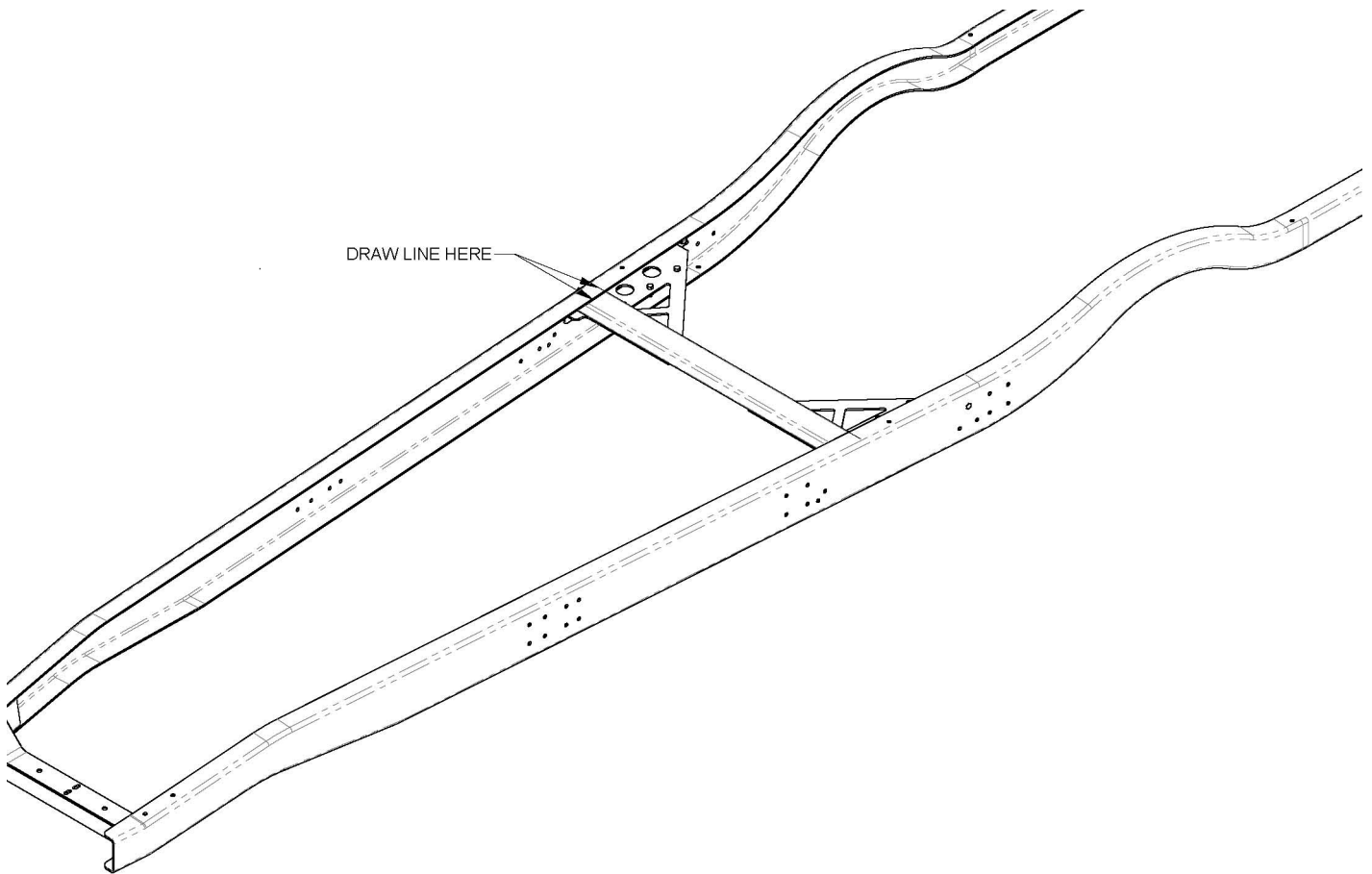
5. You will now need to check your frame for squareness. Measure across diagonally from one frame rail to the other using the existing mounting holes on the top of the frame as a reference. Repeat this measurement on the opposite frame rail. If the difference between these measurements is greater than 1/8" use a rubber mallet to move the frame rails into position. Once the rails are square, tighten all the 3/8 bolts and nuts and double check your measurements again to make sure nothing has moved.

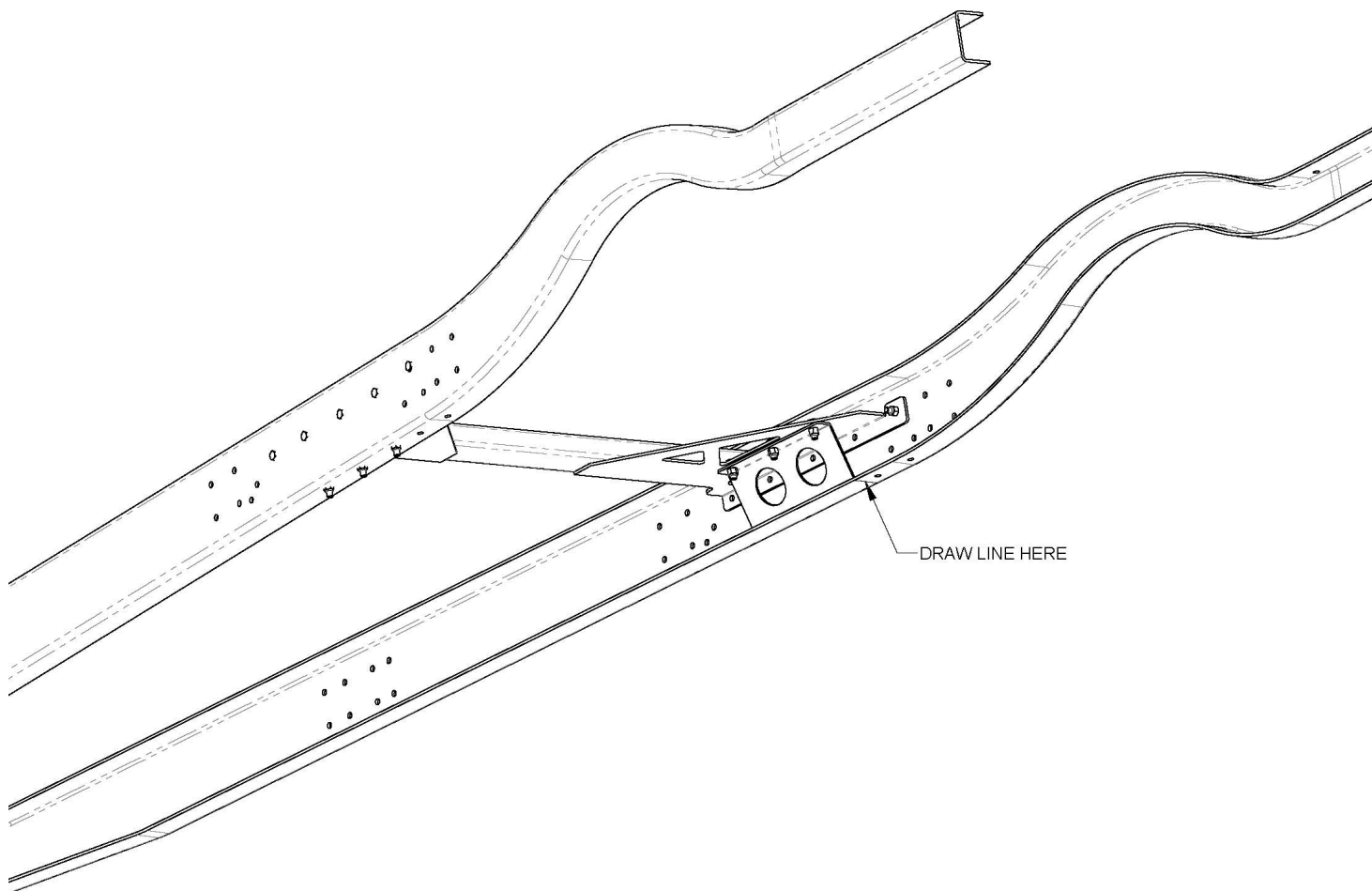
### Center Brace

6. Install the center cross brace first. Since the frame rails are tapered the cross brace will need to be slid in from the rear. The main 2" x 3" tube on the cross brace goes up against the bottom of the upper flange on the frame rail. The rear locating hole in the cross brace will bolt to the upper hole in the chassis for the lower 4-link bracket. See illustration #2. Install a 3/8"-16 x 1" bolt and nut. Pull the front of the cross brace up against the bottom of the upper flange on the frame rail and clamp in place. Tighten the 3/8" bolt and nut at the rear of the cross brace.



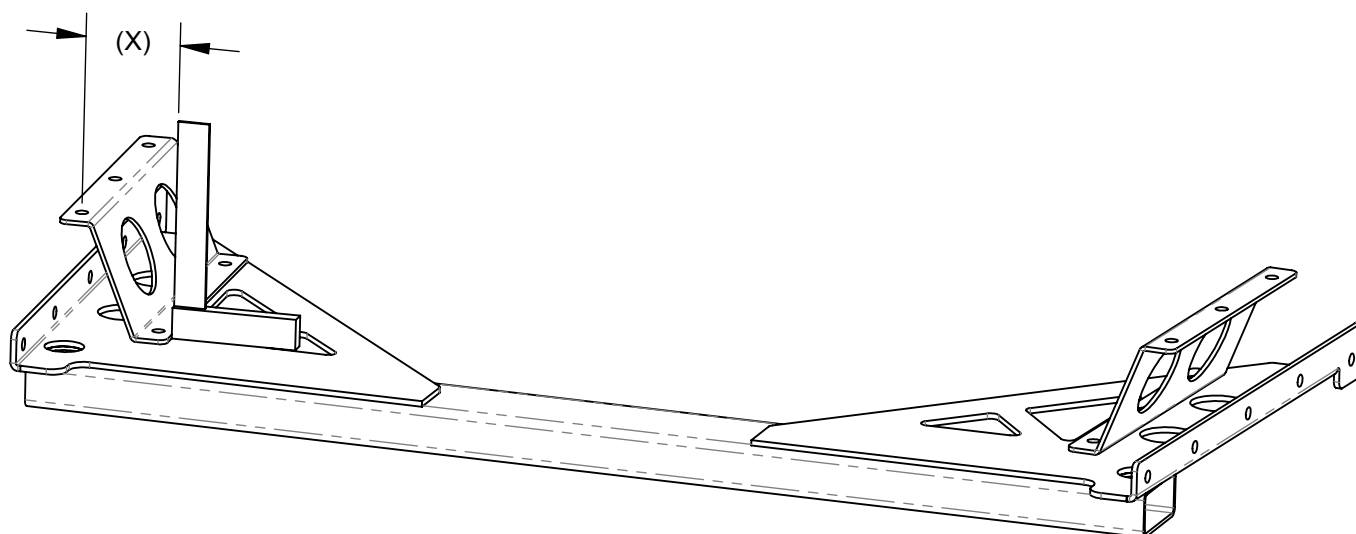
7. Using a straight edge mark a line on the top of both frame rails where the main 1-1/2" x 3" tube on the cross brace butts up against the bottom of the upper flange of the frame rail. Also mark a line at the inside edge of the frame rails on top of the 1-1/2" x 3" cross brace tube. See illustration #3. Using the cross brace as a template mark the eight holes to be drilled on the inside of the frame rails. Install the chassis gussets to the cross brace with the 3/8"-16 x 1" bolts and nylock nuts. Per illustration #4. Mark a line on the frame rail at the back edge of the gusset where it intersects the top side of the bottom flange of the frame rail. Transfer this line to the bottom side of the bottom flange of the frame rail. Remove the cross brace from the chassis and drill the eight 25/64" holes through the frame rail.

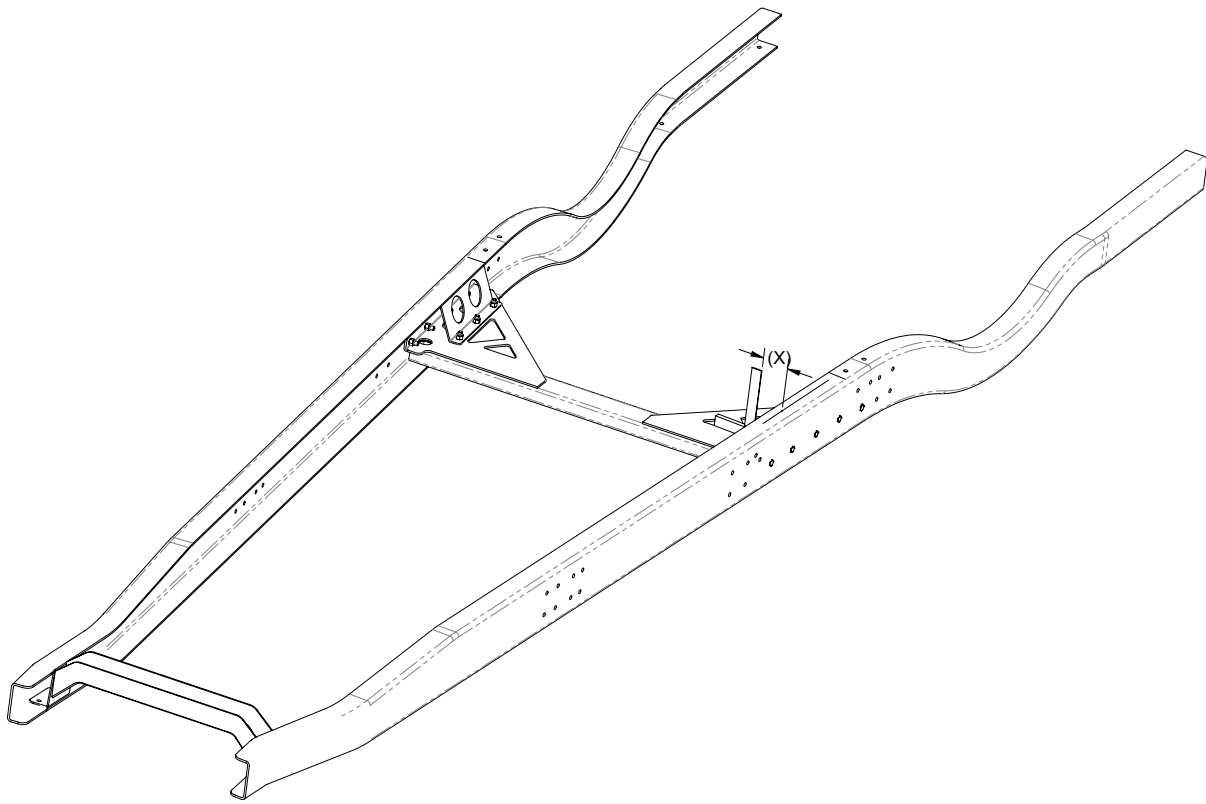




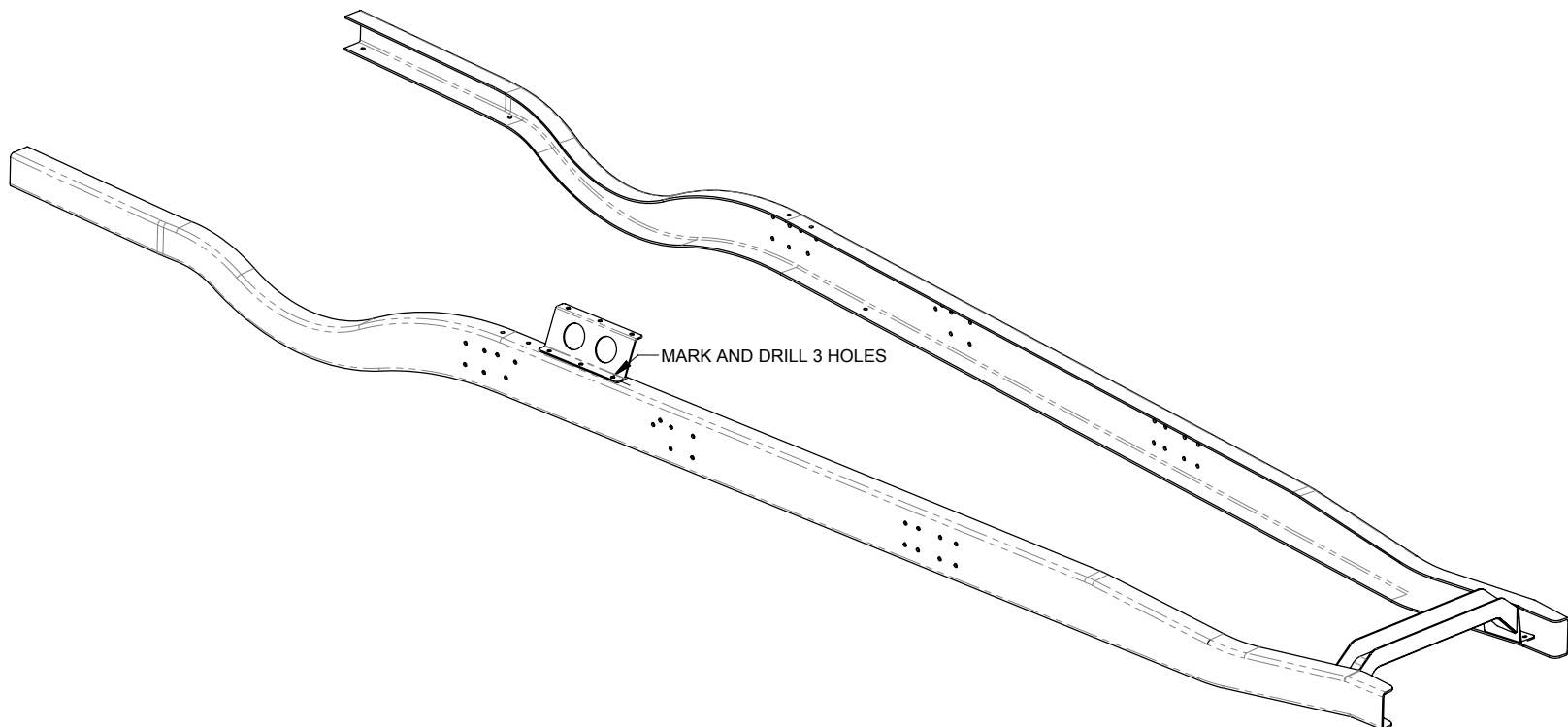
8. Measure the hole location on the ends of the 1-1/2" x 3" cross brace tube in relationship to the marked lines from the previous step. Mark the hole locations onto the top of the frame rails and drill the two 25/64" holes.

9. Flip the center cross brace up side down. Set a square up against the inside edge of the chassis gusset and measure from the edge of the square over to the center line of the holes on the opposite side of the chassis gusset. See illustration #5. Record these dimensions for both the left and right chassis gussets. Reinstall the cross brace into the chassis using the 3/8" bolts and nylock nuts, do not tighten until all the bolts have been installed. If you are installing any of the other Speedway components on your chassis you may want to skip the next step and drill all the holes on the bottom of the rails at one time so you don't have to keep flipping the chassis over.





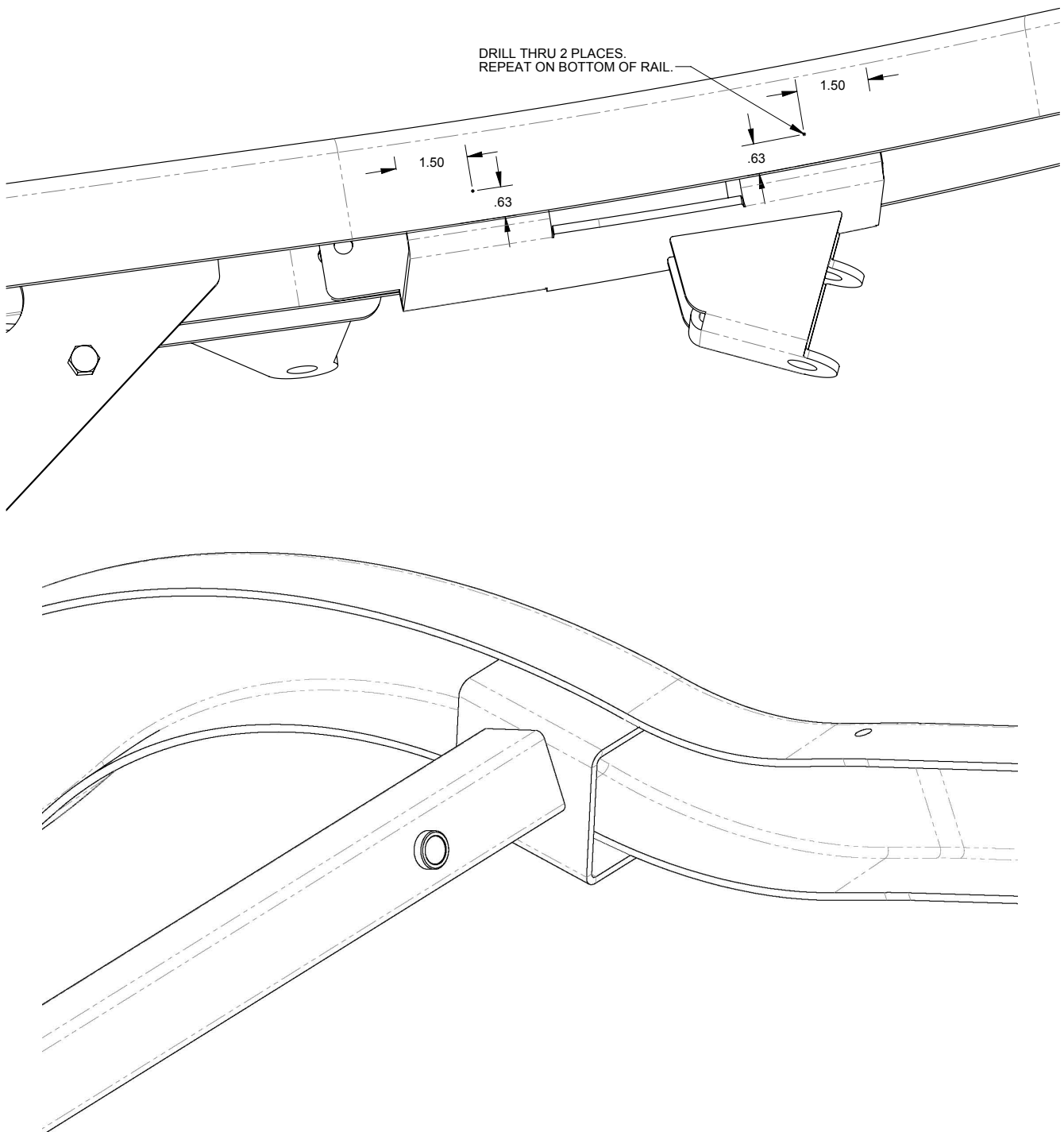
10. Flip the chassis upside down and check that the frame rails are plumb. You may need a large bar clamp to move the frame rails into position. Set the square up against the inside edge of the chassis gussets. Using the measurements previously recorded measure from the edge of the square to your recorded dimensions and mark a line on the bottom of the frame rail. Do this at both ends of the chassis gusset. Draw a line through both marks, this is the center line of the bottom holes in the chassis gusset. See illustration #6. Remove the chassis gusset. Set the chassis gusset on the bottom of the frame rail lining up the edge of the gusset with the mark on the frame from the previous step. Line up the holes in the gusset with the marked line on the bottom of the frame rail. Mark the three holes to be drilled on both frame rails. It may be easier to clamp the gusset to the frame rail and use it as a drilling template. See Illustration #7 Drill all six holes to  $25/64"$ . Install the  $3/8"$ -16 x 1" bolts and nylock nuts and torque to 30 ft. lbs.



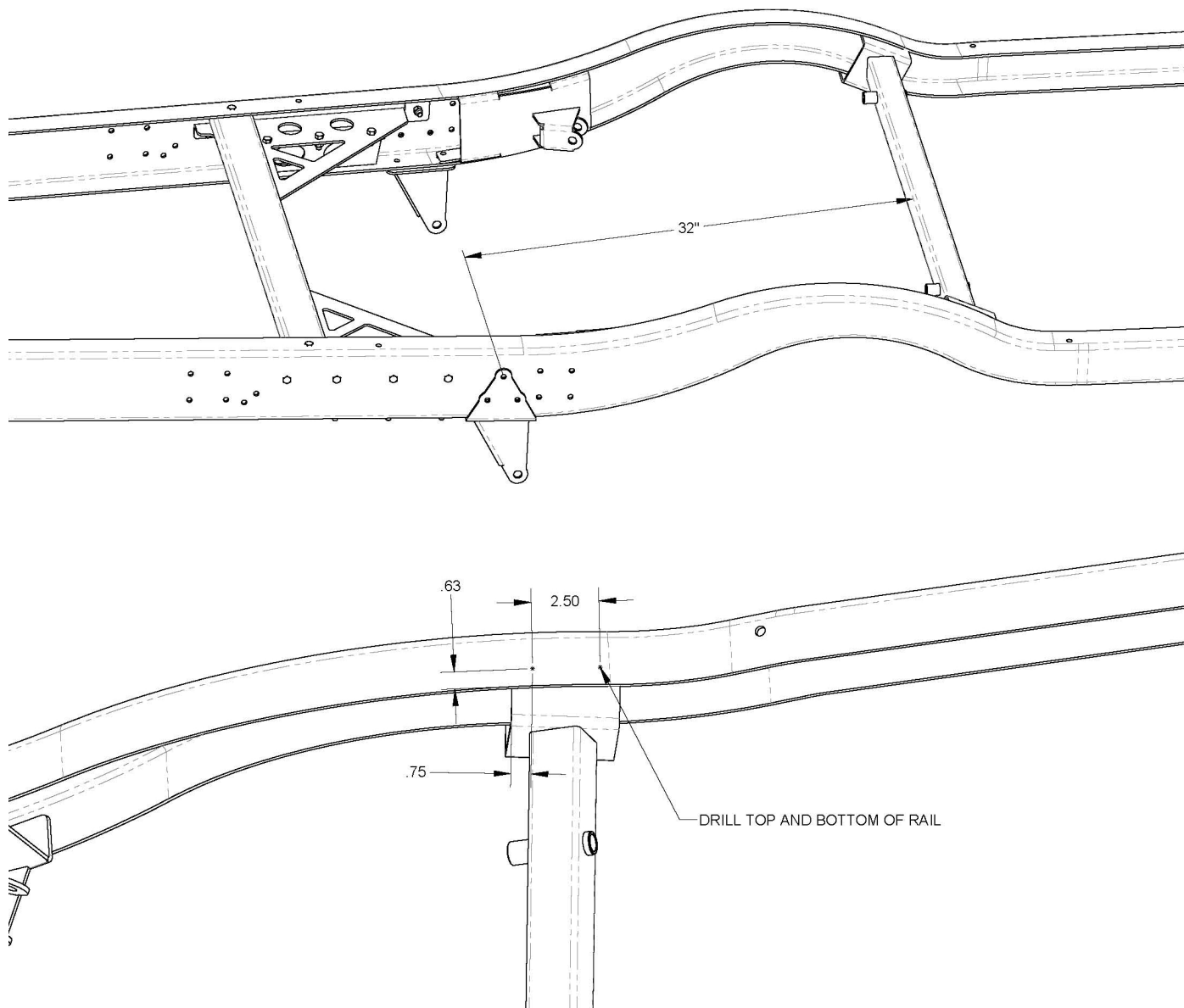
## Four Link Rear Suspension

11. Install the lower 4-link brackets to the frame with the 4-link holes facing to the rear. Using the 3/8"-16 x 1" bolts and nylock nuts. Do not fully tighten the bolts and temporarily leave the rear bolt that goes through the bottom of the frame rail out.

12. Install and locate the upper 4-link chassis brackets into the frame rails lining up the front lower mounting hole in the upper 4-link chassis bracket with the rear lower mounting hole on the lower 4-link bracket. A rubber mallet may be needed to tap the chassis brackets into position. Install a 3/8"-16 x 1" bolt and nylock nut. Clamp the upper bracket into position making sure the bracket is plumb and parallel to the frame rail. Mark and drill the six remaining 25/64" holes through frame rail and the upper 4-link bracket per illustration # 8. Install the remaining 3/8"-16 x 1" bolts and nylock nuts. Torque all the bolts and nylock nuts in the lower and upper 4-bar brackets to 30 ft. lbs.



13. Install the upper coil over shock bar into the chassis. The main 2" x 2" tube is offset and is flush with the top of the chassis brackets located on the ends of the shock bar. The chassis brackets mount to underneath side of both the upper and lower portion of the frame rail not inside of the frame rail. See illustration #9. Clamp the shock bar in place, the front surface of the cross bar should be located 32" back from the top hole on the 4-link brackets. See illustration #10. Once the bar is in position mark and drill the eight 25/64" mounting holes per illustration #11.

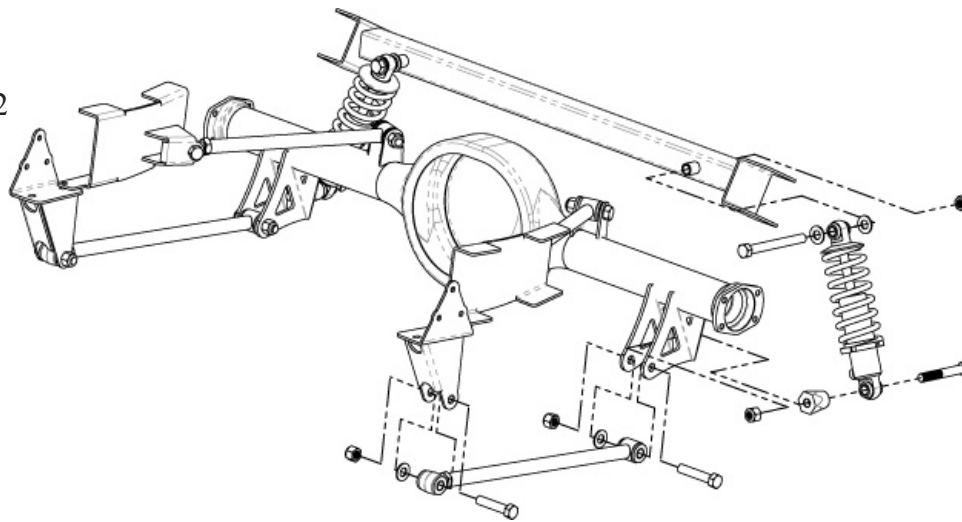


14. Position the rear axle housing into the frame rails. Assemble the bushings and the threaded adjusters into the four link bars and adjust them so you have about  $\frac{1}{2}$ " of exposed thread. Install the lower four link bars into the brackets with the adjusters to the front. Using the 5/8"-18" x 3" bolts and nylock nuts on the front mounts and the 5/8"-18 x 3-1/4" bolts and nylock nuts on the rear mounts. Install the upper four link bars in the brackets with the adjusters to the front using the 5/8"-18 x 3" bolts and nylock nuts.

15. Install the lower coil over shock mounts to the shocks and tighten. Then install the mounts to the lower brackets on the housing. Install the shocks to the upper mounts using the 5/8"-18 x 5" bolts, washers and nylock nuts.

16. Adjust the 4 link bars to square and center the housing in the chassis. The pinion angle can be adjusted using the lower link bars. Once the housing is aligned tighten all the 5/8" bolts to 110 ft lbs.

Illustration #12



## Rear Brace

17. Install the rear brace. The rear cross brace mounts in between the frame rails and does not have a specific mounting location. Because of the many after market rear mounted fuel tanks this cross brace can be moved and mounted where desired. Once the cross brace is located make sure it's square and centered in the frame rails. Clamp in place and mark and drill the eight 25/64" mounting holes. Bolt the cross brace in using the 3/8"-16 x 1" bolts and nylock nuts. Torque them to 30 ft. lbs.

18. Check to make sure all of the 3/8" mounting bolts have been properly torqued. If any of the lower mounting holes have not been drilled flip the chassis over, mark and drill them to 25/64". Install the 3/8"-16 x 1" bolts and nylock nuts and torque to 30 ft. lbs.

19. If you are installing a Speedway Motors bolt in IFS cross member you can install that now. Follow the instructions supplied with the IFS kit.

# IMPORTANT

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