When it comes to the trailing arm design of the C10 pickup, it's a pretty proven foundation for performance (NASCAR likes it!), but there are a few things that can be improved upon, especially on a lowered truck. Bobco knew this well when he recently drifted away from his Ford roots to build a '67 Chevy. Partnering with Classic Performance Products (CPP) to sort out the suspension responsibilities, he knew he had what it took with CPP's Deluxe Chassis Kit to get his truck to sit, handle, stop, and perform like he expected.

Part of that kit is a new center crossmember. The stock version of this crossmember hangs really low and is a point of interference with the ground on lowered trucks. CPP solved this problem with their crossmember design. Manufactured from ¹/₄-inch-thick steel, this custom crossmember moves the trailing arm mounting point up nearly 5 inches in order to maintain the proper pinion angle on lowered trucks. This also resulted in a less drastic driveshaft hoop, increasing ground clearance again. CPP's crossmember even accepts bolt-in carrier bearings for those trucks equipped with a two-piece driveshaft.

CPP now offers a redesigned tubular upper shock crossmember, bent up from ¹/₄-inch tubing, that mounts in the stock crossmember's place. It also does double duty, helping to stiffen the frame from the coil spring load.

The kit includes two new tubular and gusseted trailing arms. With huge bushings at the front mounting point, these heavy-duty arms will...
The crossmembers that will need to be removed and replaced with new CPP pieces include the main center crossmember that mounts the forward pivots of the trailing arms. That small stock exhaust hanger bracket will be leaving too. It's ugly and it won't be reused anyway.

Not flex when put under the rigorous loads of going around corners fast. They also feature built-in emergency brake cable bracketry and accept an optional bolt-in sway bar.

While Bobco was overhauling the rear suspension, he thought he ought to address the six-lug bolt pattern on the rear so as to match the new 5x5 lug pattern at the front of his C10. Since the six-lug flanges don't lend themselves to be redrilled to a 5x5 pattern, in the past the option was to either use wheel adapters or to simply swap out the rearend. Thankfully, CPP stepped in with a solution in the form of an axle kit that will even upgrade the stock drum brakes to big discs if desired.

This stock rear shock mounting crossmember will also be replaced. The angled gussets that mate to the bottom of the frame rail will be removed as well. The new CPP Totally Tubular upper shock mounting crossmember will handle the gusseting that is being removed.

With the entire rear suspension removed from the chassis, it's time to get started.
04 There are several ways to remove the rivets Chevy so generously put in these frames. Grinding the heads off of the easy ones to get to and artfully using a cutting torch for the harder ones works well. If you are careful and highly practiced at it, you can torch just the rivet head and not gouge the framerail.

05 The air impact driver usually will pop the rivets right out after the heads are gone.

06 After the rivets were removed the crossmember just about fell out. Here you can see the main differences between the stock item and CPP's version: the trailing arm mounts are flipped and the bottom of the new crossmember has been flattened out for added ground clearance.

07 The new crossmember fit perfectly within the framerails and all the rivet holes lined up with the holes in the crossmember, bolting right in with the provided Grade 8 hardware.

08 One crossmember swap down, one to go!
Next, CPP's C-notch kit will be installed. Made from 1/4-inch steel plate, they are preformed and ready to install. The kit includes the sections for each side, fasteners, and bumpstops to help that lowered truck gain some much needed frame clearance.

Before installing the C-notch, these stock bumpstops and brackets need to be removed first...

...which was handled when the stock shock crossmember was discarded.

The frame needs to be cut in order to install the C-notch kit. Using the new C-notch as a template, it's lined up with the existing holes that will serve as the mounting points while the framerail is marked.
13 Placing the driver's side C-section in place revealed two more rivets that need to be removed. Off with their heads and blow out the bodies.

14 The notch is then cut from the framerail using a plasma cutter. Quicker, cleaner, and with less heat than a cutting torch.

15 After the cuts have been made and the piece removed, the C-section needs to be held in place and the mounting holes marked and drilled. A 7/32-inch transfer punch was used to mark the hole locations before they were drilled to size.

16 Here's the new Totally Tubular rear upper shock crossmember. The small flat plates act as spacers and help reinforce the crossmember and the frame right where the top of the spring mounts. These plates are only used on frames with an additional layer of metal — to fill the gap. This structure will fit inside the framerail and bolt to the inside of the bottom rail.

17 Once again, the rivet holes lined right up with the holes in the new shock crossmember. Bolting it in was a snap.

18 CPP even includes these cool new bumpstops for the C-notches. Often overlooked and rarely installed, these will really help when you are super low and hitting those big bumps in the road you didn't figure in.
19 In addition to mating the trailing arm to the rearend, the U-bolts also mount a track bar bracket, lowering block, and lower shock mounts to the passenger's side trailing arm.

20 A spacer for the driver's side matches the space taken by the track bar bracket on the passenger side, keeping everything nice and level.

21 Track bars and their length are a critical factor in keeping the rearend located. They must move up and down with the suspension and not force the rearend to one side or another. The longer the bar, the less arc it travels and the less deflection caused, keeping the rearend happy and centered.

22 With that in mind, CPP designed a much longer bar than stock and mounted it nice and low off the trailing arm as opposed to the top of the rearend. It uses the same mounting point on the flemrail at the opposite end. Once in place, the rearend is centered and the adjustable track bar locked down accordingly.

23 The new upper rear shock brackets are bolted to the new crossmember and supplied shocks are attached.
24 The rear sway bar setup is designed to attach to the trailing arms while the links attach to brackets bolted to the frame. CPP's sway bar kit comes with everything required to bolt up to their trailing arms and will help the truck corner flatter, improving its handling characteristics.

25 The U-bolts attach the mounting brackets to the bottom of the trailing arms. The sway bars mounting bushings will attach to via the two bolts shown.

26-27 The end link bracket needs to be mounted to the framerail. To do so a hole needs to be drilled in the exact location, which is dictated by the assembled sway bar and end links.

28 With everything bolted up and the chassis back from the powdercoaters, the Bobco CPP-equipped C10 chassis is really looking good!
Swapping Out Six-lug Axles

29 CPP’s five-lug rear axle kit includes everything you need to replace those six-lug axles in any CJ0 truck. Bobco opted for big 12-inch rotors, single-piston calipers, brake pads, spacers, hoses, and hardware.

30 The first step in removing the old axles is to remove the brake drums. This is accomplished by first backing off the shoes so that the drum can be easily slid off. A slot in the drum may need to be punched out in order to access the drum brake adjuster. A few good raps with a heavy hammer and a punch will give you the access you need.

31 Once you have a slot, you can stick a brake spoon inside and turn the adjuster to back off the shoes. Once back away, the drum should come right off.

32 Next, the back cover of the rearend needs to be removed. A few bolts (12) and a tap with the hammer should be all that’s required to remove the cover. To remove the axles, this rearend requires a 1/2-inch socket to remove the special bolt that holds the spider gear pin in. Some are a 5/8-inch socket.
33 Once the pin is removed, the axles can be pushed in a touch and the C-clips that hold them in place will fall out, usually to the bottom of the third member housing.

34 With the old six-lug axles and stock brake assemblies removed, the new axles should just slip into place. Don't forget to have the lug studs pressed into the axles before final assembly!

35 Once each axle is slid into place, the C-clips that retain the axle inside the third member can be replaced. There is one for each side. To replace, slip over the end of the axle and give the axle a push out; that will lock it in its recess is sits in. Then the spider gear pin is slid back into place and its retaining bolt reinstalled. Reinstall the rear cover with the new gasket and that's it.

36-37 Any imperfections on the backside of the rear end axle flange will cause problems with the fitment of the brake bracket and need to be addressed before assembly.
38 The mounting bracket and caliper were attached to the rear end in order to check the amount of shimming necessary in order to center the caliper with the rotor. CPP’s kit comes with four shims in two different thicknesses. With everything bolted up it appeared that one of the thinner shims was necessary. Use the “bump” on the caliper as reference for centering the pads on the rotor.

39-40 Here’s the brake assembly installed on the rear end and ready to go.

41 CPP includes this slick brake line clamp so that the brake hose/brake line junction is nice and secure. Disc brake calipers require a section of flexible hose that allows pad replacement without having to open the fluid system.

42 With all these new brakes and suspension components, it is only smart to upgrade the master cylinder while we’re at it. This Corvette-style master cylinder that CPP produces tops a brand new booster and bracket that will bolt onto the C10 firewall and connect to the stock pedal. The metering block under the master cylinder is set for the disc/disc combo that we are running. If you are using disc/drum, they have a metering block for that also.