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EXTREME MAKEOVER

We drag a '63 wagon into the 21st century with a complete suspension upgrade from CPP.

Time marches on, and in its wake we're left with tired and worn out cars. Add in the fact that the technology employed in many of our beloved classic Novas is archaic by today's standards, and it's easy to see why blasting down the highway on 40-year-old tech can be rather unnerving.

This is especially true the farther you go back in the Nova lineage. In 1963 the Nova certainly wasn't built to be a performer, it was just a cool little point-A-to-point-B car. It was also designed by GM to be affordable, which meant keeping cost down overrode the need for leading-edge suspension and brake systems.

The strut bar suspension and four-wheel drum brakes seemed perfectly fine in 1963, but today we've grown accustomed to much better. Our new cars, with their computer-designed underpinnings and ABS brakes only serve to make our classics feel even more outdated, and even unsafe. Fortunately, the aftermarket is here to help us update our vintage Novas with modern, better-performing parts. Classic Performance Products (CPP) has a huge array of bolt on suspension parts to improve the handling, and more importantly, the safety of key components like the brakes. To see what's involved in updating a classic Nova we tracked down a '63 wagon and raided the CPP parts catalog.



Markas Platt's '63 Nova wagon is super clean, but the 13-inch wheels certainly don't fall into the "wow" category. This has been his daily driver for the last 12 years, and in that time he's logged over 300,000 miles on the odometer.



2. All those miles have taken their toll on the vintage suspension. Even when new, it was outdated by today's standards. Right now the biggest problem is that it's worn out and caked with decades of oil and grime.
3. Another issue to contend with is the four-lug wheels. Markas wanted to upgrade to some 15-inch rallies, but his current lug pattern made that problematic.
4. To tackle the suspension we contacted Classic Performance Products (CPP) and raided their catalog for all the necessary parts. We didn't want to annihilate the budget, so we opted for standard shocks over the more exotic coilovers.
5. The original suspension utilized a strut-bar arrangement. This

worked OK, but now there's a better way. The main problem with this system is that the strut and its associated brackets need to flex for the suspension to work. After decades of constant flexing, the metal isn't quite the same, and even bolting on new parts wouldn't make it as good as it was new.

6. Since everything will be replaced with new parts, we removed the old lower control arm, brake, and spindle assembly as one unit.

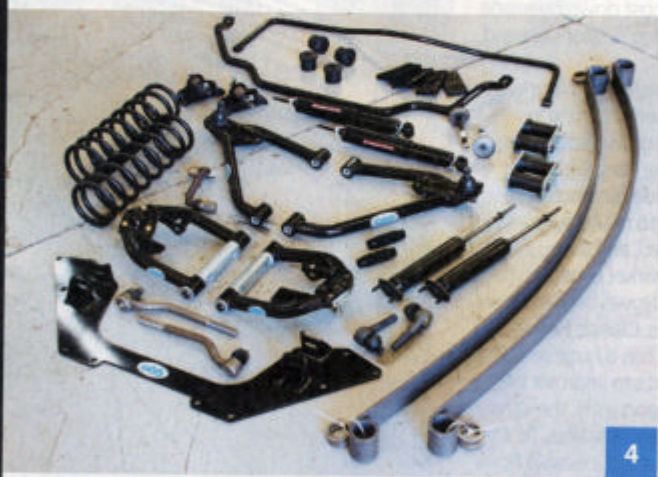
7. Next, we unbolted the old mounts for the strut bars. In our case it was bolted in place, but we've also seen where this piece is riveted to the car. If that's what you run into, you'll need to grind the rivets off to remove the mounts.



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8. The old plates were then replaced by this mini subframe from CPP. This will give us a place to mount the lower control arms which are included as part of the control arm kit. As a bonus, it also added much needed structural rigidity.

9. We're not going to give you a blow-by-blow on removing the upper control arm and spring. Just take care since the spring is under a good amount of pressure. The best way is to beg, borrow, or rent a spring compressor. Once everything is out, this is how it should look.

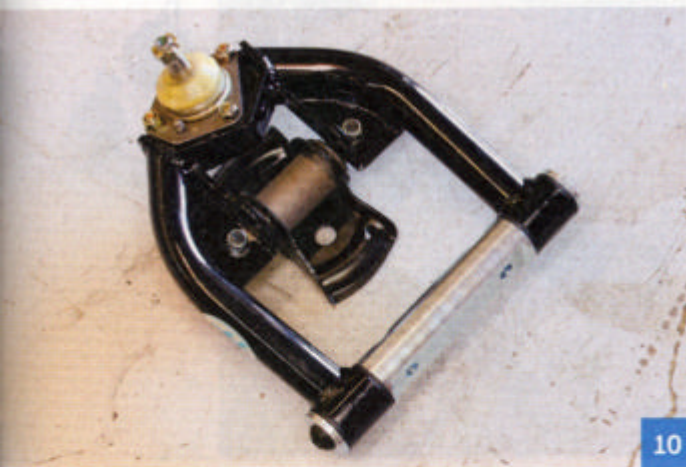
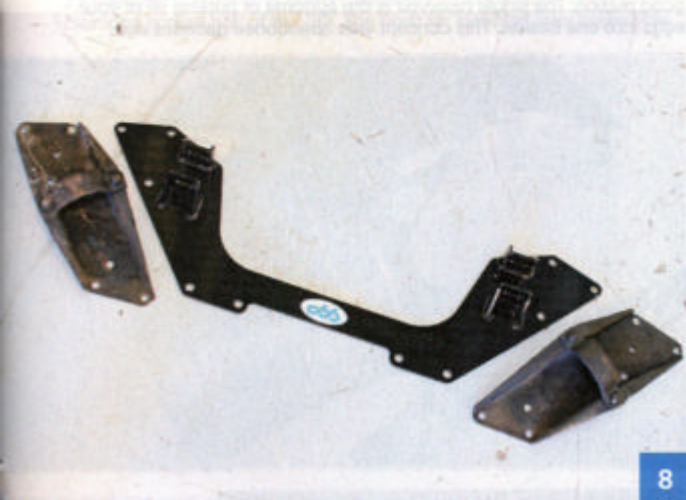
10. We then bolted the spring perch to the new tubular control arms. The upper and lower tubular control arm kit (PN 6267TCA-ULK-B) runs \$689. In addition to looking great, more importantly it modernizes the Nova's suspension.

11. The new front coil springs (PN FCS6080-S, \$105) are stock

height. Getting the nose down will be left to the 2-inch drop spindles. The stock clips that help the original upper spring seat stay in place had long since rotted away. To keep it in place during the install we secured it with a couple of pieces of electrical tape.

12. We bolted the new control arm to the Nova with the supplied hardware, then used our handy spring compressors to get everything properly situated. We also made sure the spring was properly positioned in the lower perch and upper seat before removing the compressors. Again, use caution and common sense during this procedure. Lastly, we slid in the new Monroe shocks (PN 5756, \$39 each) and fastened them in place.

13. With the upper control arm in place we could then install the new lower control arm with the supplied eccentric bolts as shown.



14. We were happy to see that CPP shipped us the new front disc brake kit (PN 6467WBK-S, \$449.00) fully assembled and already attached to CPP's 2-inch drop spindles (PN CP30103, \$225) and steering arms (PN 6267SA, \$99 pair). The slotted and drilled rotors added another \$89 to the price. As an added time saver, the wheel bearings were already packed with grease and cotter pinned in place.

15. We lowered the lift and used a floor jack to bring the two control arms into the new spindle assembly. It doesn't take much pressure, so don't get carried away and knock the car off the lift. With the ball joints in the spindle, we castle-nutted and cotter pinned them in place.

16. Here's the new mini-subframe and lower control arms in place. We're thinking the Nova's 194hp 6-cylinder "high-thrift" mill might be

in need of some new oil seals and gaskets since it seems leakier than the Exxon Valdez.

17. The old tie rods were toast so we opted for shiny new ones from CPP. The short inner (PN ES323L, \$22) and longer outer (PN ES661, \$69) are joined by an aluminum tie rod sleeve (PN ES2032SP-AB, \$69 per pair).

18. Our last task with the front suspension was to install the 1-inch front sway bar (PN CP108U-BLACK, \$149). Note the tubular spacers for attaching the sway bar mounts. With this done we double-checked every fastener and put new cotter pins where required.

19. They just don't make master cylinders like this anymore, and for good reason. The single reservoir is the epitome of putting all of your eggs into one basket. This concept was abandoned decades ago.



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20. With the old master shipped off to the Smithsonian we were left with this rather odd shaped hole and two studs. The new power booster has three studs on the back so we knocked out the two factory bolts. This left us with two holes in the firewall. We then drilled the third hole at the six-o'clock position. If you look close in this area you will see a small dimple that indicates where to drill.

21. As another time saver, the brake booster came mated to the new master cylinder (PN 6267BB2-9, \$299). Even the new brake lines were coiled and in place. On the back of the brake booster there was a foam gasket designed to seal up the odd-shaped hole in the firewall.

22. The new booster and master assembly fit like a glove in the rather cramped engine bay of the '63. The front kit included new brake lines

to accommodate the updated tandem master.

23. The brake kit also includes these short outer brake hard lines and new rubber hoses. With this done we were ready to tackle the rear of the Nova wagon.

24. The old suspension on the Nova wagon is, well...old. The rear leafs had lost their spring, so Markas had a set of air shocks installed to keep the bumper from dragging on the ground. And the worn drums didn't inspire much confidence when braking.

25. Our main quandary with this project was the four-lug rear axles. The front now had five lugs, so we needed to come up with a way to make the rears match. We didn't know of anyone who made replacement axles, and a new rearend was outside our budget.



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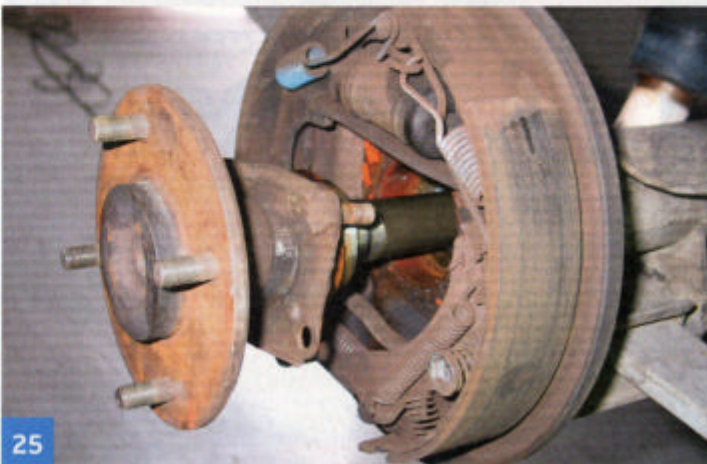
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26. Fortunately Currie Enterprises had a solution. They have the ability to weld up old bolt holes and drill new ones. They hadn't done this type of axle before, but they made up a jig and knocked them out. The best part was the price. It was only \$100 for the pair of axles, plus the price of the new studs. If you look at the un-drilled axle you can't even tell where the original four holes were. They also refaced the axles to make sure they are flat and true. This was cheaper than new axles and way cheaper than a whole new rearend.

27. With the rear safely supported by our modified tranny jack, we were able to remove the old leaf springs to make way for the new ones.

28. The new mono leaf springs (PN 6267RMS-D, \$489) come with metal shims for both ends, but for our application we only needed them for the front end.

29. The rear was put in place with CPP's shackle kit (PN 27009, \$38)

and the leaf springs were attached to the rearend with a poly mono leaf spring pad set (PN 3-6113G, \$17 set).

30. With the leaf springs in place we could re-install our Currie-modified axles. We reused the factory bearing retention plates and made sure they were in place before Currie pressed on our new bearings. We were also sure to put the CPP-supplied spacer in place before sliding in the axles.

31. Here you can see how we bolted the laser-cut caliper bracket in place. Also note the circular spacers we used to get the bracket in the right spot. According to the CPP instructions, the four bolts were to be installed with the nuts facing the rotor, but we found the bolt at four-o'clock (red arrow) needed to go in the other way due to the spring pad being in the way.



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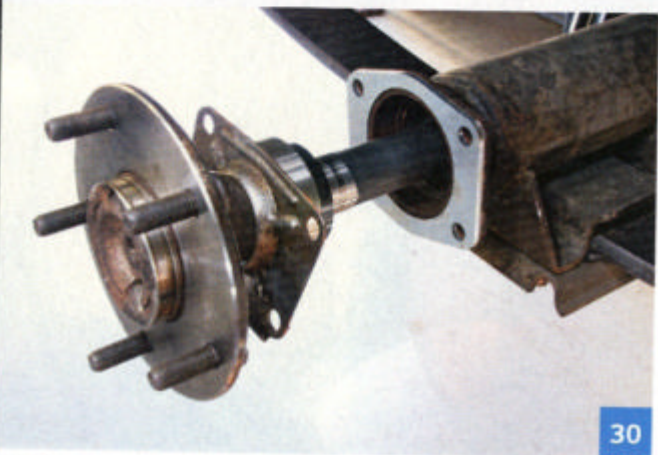
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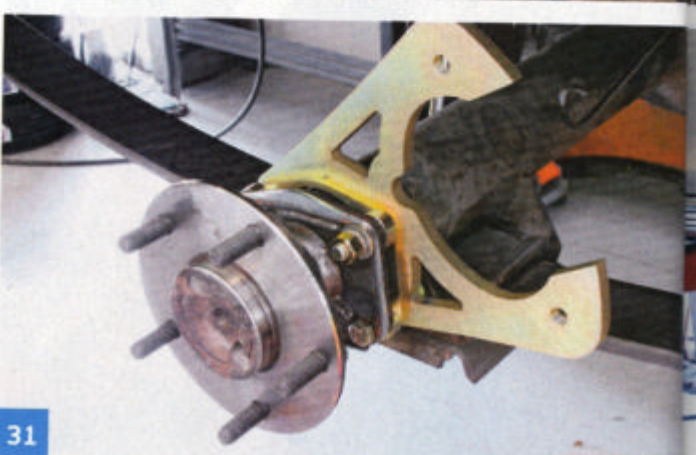
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32. We then slid on the new rear rotor. The rear brake kit (PN 6263RWBK-E, \$599) comes complete with everything including new rear hard lines and e-brake cables. The slotted and drilled rotors were an additional \$89.

33. With that done, we installed and secured the new single-piston calipers.

34. To finish out the rear brakes, we attached the new brake hard lines to the rearend, secured them with the included band clamps and installed the new rubber brake lines. We then attached the included e-brake cables.

35. Here you can see the completed rear system. All we have left to do now is bleed the brakes and get the wagon to an alignment shop. Total install time was about a day and a half, not counting the down time while Currie worked over our axles. Best of all, our suspension and braking systems are now solidly in the 21st century and should

serve the Nova well for another 350,000 miles.

36. Since we went to a five-lug arrangement, our old four-lug wheels were useless. Soon after a call to Wheel Vintiques, these sweet 15-inch rally wheels arrived. Up front we are running 15x6-inch, and in the rear we have 15x7-inches. For rubber, we found these BF Goodrich Track TA tires to be perfect. In the front we're rolling on 195/60/15s, and in the rear we have 215/60/15s. We could have gone with a 225 in the rear, but everywhere we looked, they were out of stock. We guess they're popular.

37. Not only is the car now much safer, but the ride has improved dramatically, especially on the highway. We're happy to report a more sturdy and solid feel to the car. All of us at the office agree that the selected tire and wheel package just makes the car look right. The transformation from Granny's grocery-getter to street-sleeper is well on the way. Now, where'd we put that V-8?

