ASPHALT

Progress Group unveils an interesting new Mustang suspension in an interesting new manner

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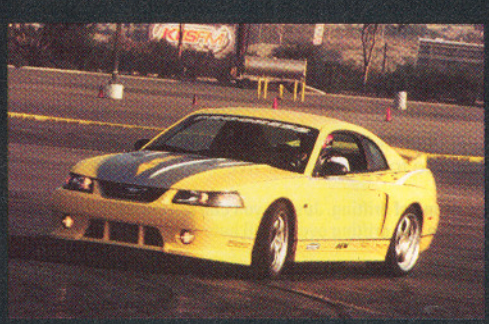
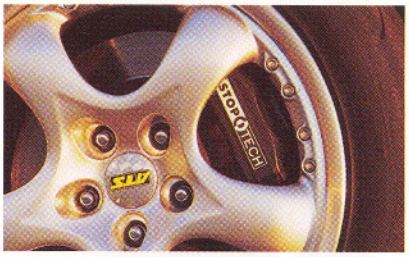


Of course, anyone who has driven a Mustang in rain or snow knows all about drifting, albeit from a white-knuckle perspective

Text by Tom Wilson
Photos by E. John Thawley III

You can't pitch a set of stock mufflers into a dumpster without hitting a drifting contest these days. Without a doubt, it's the latest thing. Of course, anyone who has driven a Mustang in rain or snow knows all about drifting, albeit from a white-knuckle perspective where the only one who knows what'll happen next is God. Predictable as earthquakes, tailout Mustang handling is a losing lottery of half-caught lunges and backward entries into the ditch. But that's with the stock suspension.

Progress Group [(714) 575-1193; www.progressauto.com] is in the business of calming things at the handling limit, and given the company's Southern California address, it was inevitable it would prep a Mustang for the drifting scene, as we're seeing here. Luckily for all of us, what makes a drifting Mustang controllable while cooking its rear hides in lap-long slides is also good for keeping the tail end under control on freeway on-ramps. The result is a new, affordable, well-engineered suspension upgrade for street-driven late-models ranging from 1979 to 2004.



It's a welcome addition to the slim center of a three-level Mustang suspension market. As always with Mustangs, there is the least expensive bolt-on option. Typically this means stronger rear lower control arms for increased bite and predictability during acceleration. Any number of companies offer such arms—and plenty of other parts—to suit the piece-at-a-time approach.

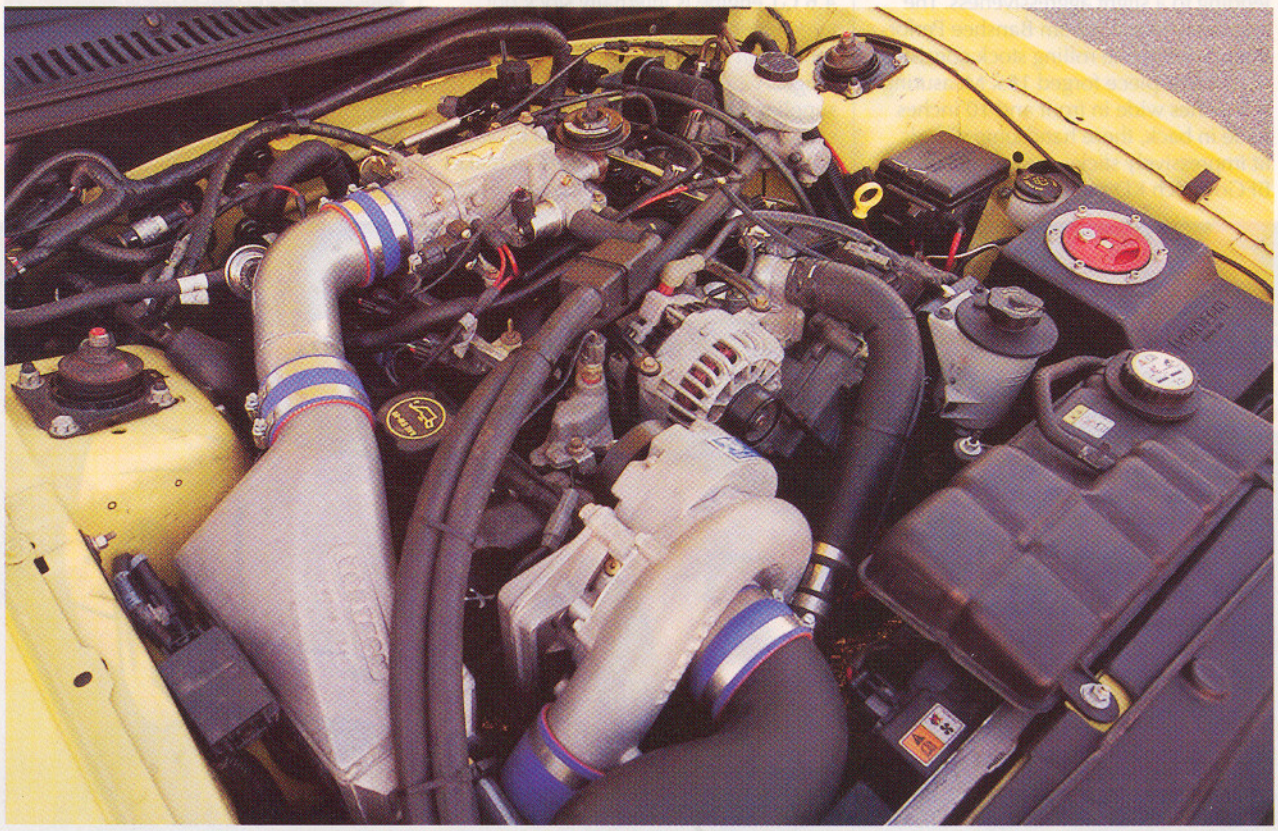
At the other end of the cash register are replacement suspensions that eliminate the stock suspenders with a reengineered suspension. Most often these use torque arms or five-link rear-axle arrangements. There is no question such replacement suspensions offer high-zoot handling, but as comprehensive and intensive to install as they are, the systems are inexorably accompanied by a high-zoot price as well.

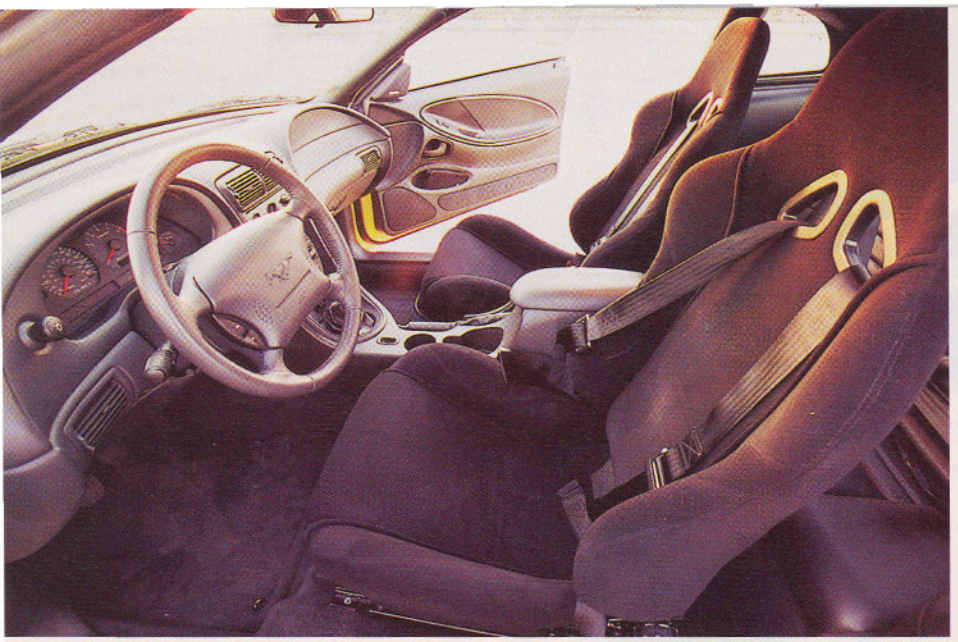
Progress Group's new offerings are in the middle of these extremes. As a spring, shock, and bar suspension system, it's designed to offer significant increases in handling at prices almost any enthusiast can afford.

Mainly under the direction of Progress Group President Jeff Cheechov, the suspension has been developed into a pleasant-riding, real-world improvement that delivers flatter, higher-grip handling, as well as 1.5 inches or more lowering. It consists of front and rear sway bars, front and rear coil springs, front struts and rear shocks—both from Tokico—and aluminum rear lower control arms. Furthermore, Progress Group is working on rear upper control arms with trick, no-bind bushings. The car featured here was wearing those arms when we drove it, and you'll be able to buy them shortly.

Horse Sense: Squealing tires are the signature sound of drifting. Just as you can tell you're getting close to a race track by the sound of screaming engines, long, lurid tire squeals announce the presence of a drifting event well before you can see it.


PROGRESS
AEM
STOPTECH
tires.com





ASPHALT BALLET

In the meantime, Progress Group has put all its suspension parts and a few supporting bits from the aftermarket on this '02 GT demonstrator and sometimes drift—and drag and open-track—competitor. Naturally, we've given it the drift to lunch and twice-around-the-cloverleaf treatment, and can say we definitely like it, beginning with the looks. Those are Roush Stage III body panels on the front fascia and rear wing, lending to a slight aggressiveness. The composite hood is from Banshee Performance, while the rolling stock consists of ATS two-piece forged 18s. Measuring 8.5 inches wide in front and 10 inches wide in back, these handsome wheels fit impressively sticky and predictable BFGoodrich KD rubber front and rear.

Jeff points out that, as in other motorsports, great tires are a must for drifting. Even while spinning and smoking, it takes good tires to provide the feedback, and—yes—grip, to accurately and consistently hang the tail out. Thinking junk tires would be fine—and a lot cheaper—Jeff says they initially tried Maypop rubber but quickly turned to the BFGs when the el cheapos revealed their inconsistent, low-grip personality. It's a shame, too, as two laps are about as long as rear tires—even the killer KDs—last when drifting.

Definitely more durable is the good, old American iron under the hood. The 4.6 GT engine is internally stock but augmented with a Vortech V-2 S-Trim running in the 9-10 pounds of boost range. A 255-lph Walbro in-tank pump supplies the fuel and 38-lb/hr injectors spray it. Distribution is handled by an off-the-shelf Vortech system—that makes it an Autologic chip. Iridium plugs from Denso greatly reduce misfiring in conjunction with one of AEM's new CD ignitions. Air metering is via the stock GT's 80mm meter, and the whole was installed and tuned by Factor X Motorsports in Las Vegas.

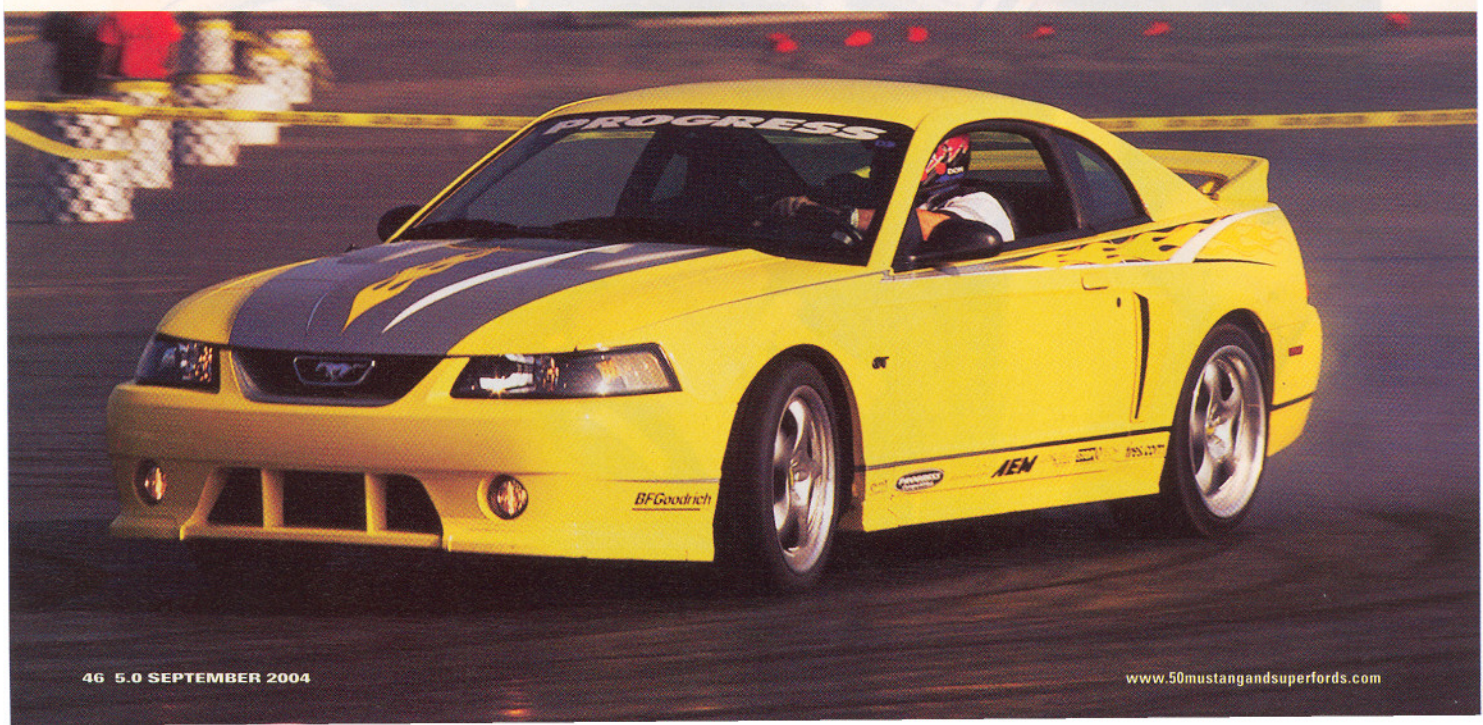
Reasoning that a ton of rear gear would aid drifting, Progress Group installed 4.10 gears in the otherwise stock 8.8 rear axle. That did the job, giving the hard hit and rev needed to keep the rearend spinning while drifting. But with the blower power on tap, these gears have proven to be too much on the street and road course, so a change to 3.73 or possibly

Drift Report

After two Driftassociation.com events in this car, Progress Group reports that drifting is not road racing! It's plenty difficult to drive—the pros, as always, make it look easy—and the car setup is slightly different.

Because drifting puts a premium on controlling spinning rear tires and does not penalize for a slower lap time, reduced rear grip is the order of the day. Progress accomplished this by fitting 265/35-18 BFGs in the back, bolting on a slightly larger rear sway bar, and adding the aforementioned 4.10 rear gears.

The gears proved just right for drifting, and combined with the other changes, they allow the driver to finely adjust the rear grip with the throttle. The more throttle, the more sideways and slower the car goes; the less throttle, the straighter and faster the car goes. It's counter-intuitive at first, but that's how it is in all crossed-up maneuvers when the rear tires are already spinning.



even 3.55 gears is in the works.

With either gearset giving 359 hp and 365 lb-ft of torque at the rear wheels, this Santini Custom Graphics yellow attention-getter is no slouch in the straightline department. At press time, quarter-mile testing had not been run with the blower, so we don't have a number or speed for the combination, but given a good launch from the compliant suspension and sticky tires, the times and mph ought to be good. Previously, without the blower and using 3.27 gears, the car ran 13.93 at 105 mph at Las Vegas Speedway, which is at 2,000 feet altitude.

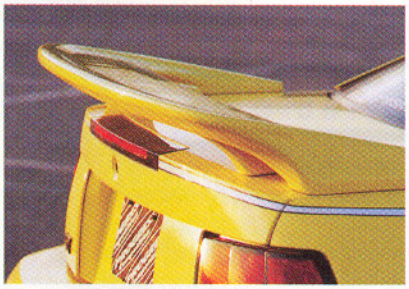
Of course, the real story is under the car, where Progress Group has installed every part it offers for Mustangs, along with a few others. To stiffen the chassis, the OEM convertible brace was added to the rear of the stock K-member, together with a set of Roush Performance bolt-on subframe connectors. Progress Sport Springs were fitted, lowering the front by 1.75 inches and the rear by 1.50 inches. These are linear-rate windings of 725 lb/in of rate in the front and 300 lb/in dual-rate progressive springs in back. A shorter pinion snubber was also fitted to work with the lowered ride height.

In front, Energy polyurethane bushings were fitted only to the stock lower control arms, along with five-way adjustable Tokico struts. Jeff says he's found the Tokico adjustability well suited to the Mustang, with a number 3 setting good for the street and a number 5 the right thing on track. An easy, 10-second, screwdriver adjustment at the top of the strut is all that's required. Working with the higher spring and shock rates are Progress' 1.38-inch tubular front sway bar (a lower-cost but heavier, solid bar of identical diameter is optional).

Progress Group Pricing

Springs	$207 set of 4
Sway Bar	$159 f, $159 r
Rear lower control arm	$239
Rear upper control arm	$219

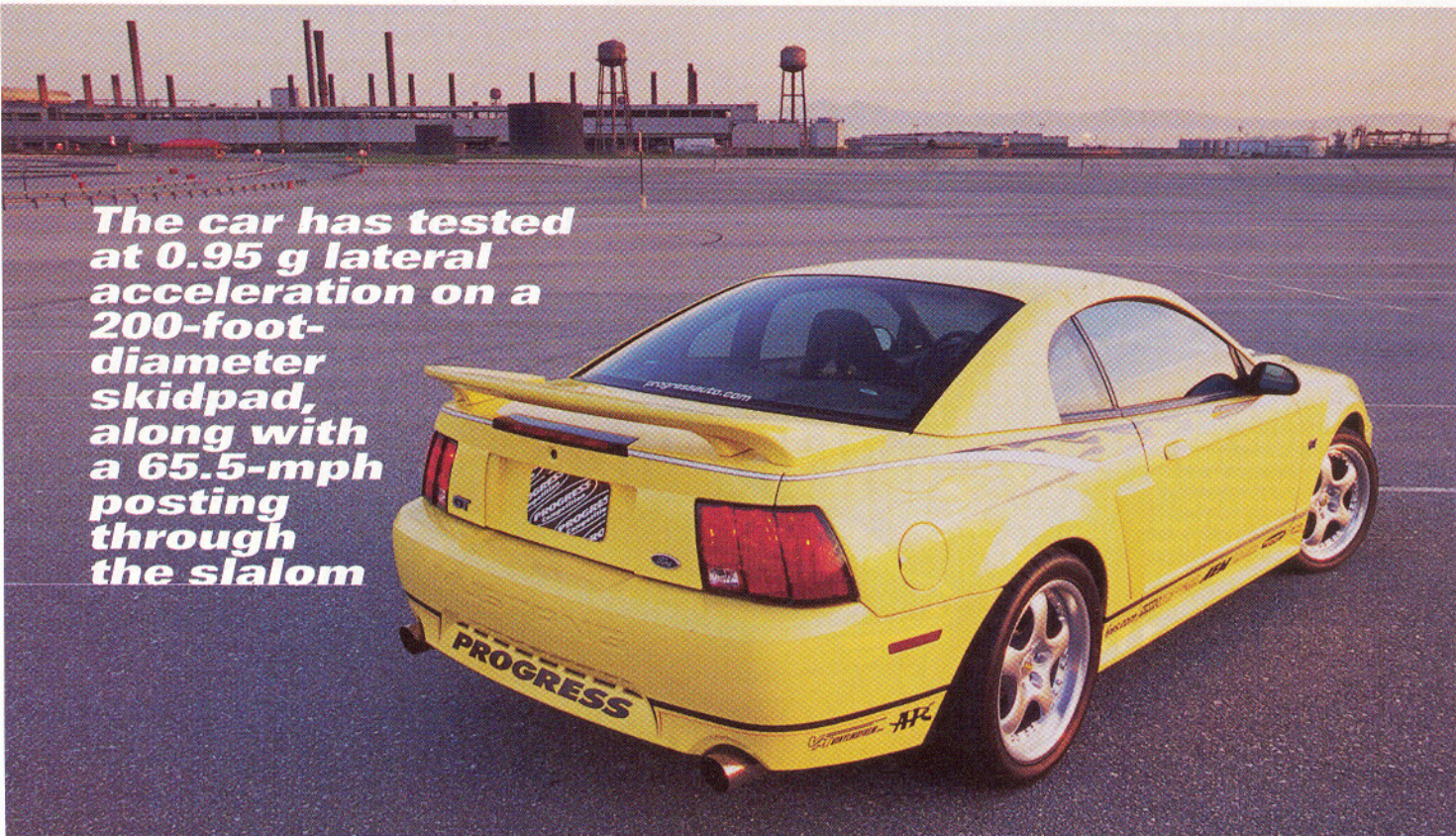
All prices are typical street prices.



In back, the same Tokico five-way adjustable shocks were fitted, along with Progress' aluminum lower control arms. These lightweight arms are reinforced for strength and are fitted with polyurethane bushings at one end and stock rubber bushings at the other. Our feature car also sported prototype aluminum upper control arms. Besides looking buffly industrial with their welded plates and lightening holes, these arms use a trick, high-angularity bushing to hugely reduce the infamous Mustang rear axle bind. This is done with a central steel sphere at the heart of the bushing. The sphere has two cylinder-like extensions to take the through-bolt and is cupped inside a pair of urethane cushions. This allows large angle changes by the steel ball without binding, as well as a high degree of precision thanks to the low-distortion urethane. It's a unique and clever attack on this critical bushing.

Climbing into the demonstrator, the first things we noticed were the deeply contoured APC Sport Seats. A welcome nod to this car's drifting and open-track prowess, the new-design seats fitted on the snug side—not unexpected given our now admittedly broad outlook on seating thanks to years of press-junket over-indulgence. Just a few necessary extras were on-hand in the cabin, mainly Crow 3-inch lap belts and an AEM UEGO air/fuel gauge.

A short-throw Roush shifter certainly crisped-up the shifting, but it was clearly the suspension that had stepped up big-time. Given its real-world spring rates, the ride was surprisingly good. The sharp-edged potholes and culverts came through a bit more authoritatively, of course, but without the spine-crushing harshness typically associated with lowered cars. A bit of baby-buggy vertical



The car has tested at 0.95 g lateral acceleration on a 200-foot-diameter skidpad, along with a 65.5-mph posting through the slalom

business is inevitable with shorter, stiffer springs. But in this case, just minor bits of it come through.

Steering precision was perhaps slightly improved, but the big deal was the more eager turn-in and definitely the flatter cornering and control well along the way to the tires' high limits. Driving on the street, we couldn't explore the far ends of the Progress Group's handling, but we did venture deep into enthusiast territory while centrifuging our way through freeway ramps. The tires delivered high grip, and the sway bars and higher spring rendered a flatter stance, but the big, welcome change was the gain in stability as the limit was approached. The rear never stepped out, and even at high g-loads, the front end would answer more steering lock by coming in to the apex, while midcorner corrections were without drama. Progress says the car has tested at 0.95 g lateral acceleration on a 200-foot-diameter skidpad, along with a 65.5-mph posting through the slalom, and we saw no reason to doubt it.

We attribute much of the hard-cornering stability to the trick rear upper control arm bushings—which, similar to the lower arms are greaseable. While we would really need some track time to fully evaluate this system, our initial impression is that this car will hang in there—with precision—either to the limit or close to it.

Combined with the easy spring-shock-bar installation of the Progress Group parts—you don't need the village blacksmith to get this stuff on the car—and a reasonable pricing structure, this is a viable new Mustang suspension. It's designed for daily street driving, with occasional drag or open-track action, so there ought to be plenty of people ready to put it to good use, such as drifting on the way to work. **5.0**

5.0 TECH SPECS

ENGINE AND DRIVETRAIN

Block	Stock
Cylinder Heads	Stock
Intake Manifold	Stock
Camshaft	Stock
Power Adder	Vortech, V-2 S-Trim
Exhaust	Stock headers, MagnaFlow X-pipe w/cats, MagnaFlow after-cat
Fuel Pump	Walbro 255-lph in-tank
Fuel Injectors	Vortech-supplied 38 lb/hr
Transmission	Stock T45
Rearend	8.8, Traction-Lok, 4.10 gears

ELECTRONICS

Engine Management	EEC V, w/Vortech/ Autologic chip
Ignition	AEM Capacitive Discharge
Gauges	AEM A/F monitor

SUSPENSION AND CHASSIS

FRONT SUSPENSION

K-Member	Stock
Springs	Progress Group 725-lb/in linear rate
Struts	Tokico Illumina five-way adjustable
Wheels	ATS two-piece forged 8.5x18-in
Tires	BFGoodrich KD 245/40AR-18
Brakes	Stoptech 13-in, Axxis Ultimate pads for street, Pagid for track

REAR SUSPENSION

Springs	Progress Group 300-lb/in dual rate
Shocks	Tokico Illumina five-way adjustable
Traction Devices	Progress Group upper and lower aluminum control arms, urethane bushings,1.50-in Progress Group sway bar
Wheels	ATS two-piece forged 8.5x18-in
Tires	BFGoodrich KD 295/35-18
Brakes	Stock
Chassis Stiffening	Roush subframe connectors
Vehicle Weight	3,418 lbs w/o driver