

## LATE MODEL RULES

\*\*\* Please refer to General Section for rules and regulations applicable to all divisions\*\*\*

### **1. THE CAR, BODY & SPOILER:**

- 1.1 The Late Model Division is open to strictly American made cars manufactured after 1955.
- 1.2 Camaro/Firebird bodied cars up to 1992 are allowed.
- 1.3 Fiberglass bodies are allowed.
- 1.4 Plastic front fenders and rear quarter panels are allowed.
- 1.5 Any other make or model up to 2008 permitted, exception: muscle car bodies (Camaro, Mustang, Charger) up to current year allowed.
- 1.6 High down-force bodies and/or parts will not be permitted.
- 1.7 Carbon Fiber parts of any type are not allowed.
- 1.8 No mixing or matching of body parts.
- 1.9 Body must remain stock appearing and mounted to the manufacturer's specification using the 5 inch ride to add an inch to the specified appropriate height dimensions.
- 1.10 No convertibles, four wheel drive trucks, or station wagons allowed.
- 1.11 The driver and passenger side doors may have inner panels removed for roll bar clearance only.
- 1.12 All forced air openings must be used for radiator or brake cooling only.
- 1.13 A metal firewall must separate the driver from the trunk area.
- 1.14 Inner front fender wells may be removed on non-unibodied cars.
- 1.15 Front and rear stubs may be tied together.
- 1.16 Fenders and quarters may be trimmed at the wheel opening for tire clearance, a maximum 4 inches from tire, rolled with no sharp edges.
- 1.17 Fiberglass hood and fenders are permitted –No one piece front ends allowed.
- 1.18 Single side kick-off bars flush with the body are optional.
- 1.19 Doors must be welded, bolted, or riveted shut at all times.
- 1.20 No external nerf bars of any type allowed.
- 1.21 Lexan rub rails allowed between front and rear tires only, no sharp edges.
- 1.22 Reinforcement behind stock bumpers is permitted, if properly welded to the frame.
- 1.23 Bumpers must be at stock height.
- 1.24 No handmade nose pieces allowed.
- 1.25 Aftermarket noses cannot be wider than stock.
- 1.26 Altering the body and roof lines is not allowed.
- 1.27 No fabricated nerf bars are allowed on the front or rear bumpers.
- 1.28 Cars must have driver fire protection such as a stock original full firewall, minimum .040 steel fabricated firewall, or Super Late Model style footbox and interior.
- 1.29 Super Late Model style footbox must be totally enclosed and made of minimum .040 steel. Right side interior panel can taper upward to the right side of door bar.
- 1.30 All unnecessary holes in floor pan or firewalls must be covered with metal.
- 1.31 Floorboard must be made of .040 steel minimum.
- 1.32 Stock grills may be exchanged with steel or aluminum mesh.
- 1.33 All upholstery and glass must be removed including head lights, tail lights, chrome trim, and anything else that could come loose and become hazardous.
- 1.34 Original dashboards are optional, if removed, all sharp edges must be rounded off.
- 1.35 Original seat must be removed and replaced with an aluminum racing seat, properly fastened to the roll cage.
- 1.36 No functional hood scoops or air cleaners that stick out of the hood are allowed.
- 1.37 Raised hoods are allowed.

- 1.38 All hoods must seal against the windshield.
- 1.39 Hoods and deck-lids must be properly fastened with quick release pins.
- 1.40 No side or vent windows are allowed.
- 1.41 No interior spoilers, wings, skirting behind the rear tires or wind deflectors are allowed.
- 1.42 A rear spoiler, non-adjustable by driver, may be attached to the rear deck-lid, not to exceed 5 inches in height and 60 inches in length.
- 1.43 Must be 1/8 inch metal or 1/4inch Lexan and control the flow of air over one surface only.
- 1.44 No rudders or forward mounting brackets allowed.
- 1.45 Ride height will be monitored by “on track” performance during competition. Any car that bottoms out during competition for 3 consecutive laps will be black flagged. Front and rear windows are required.
- 1.46 Greenhouse body allowed. No lightweight Greenhouse components.
- 1.47 **No Gen 6 Body allowed.**

## **2. WINDSHIELD, GLASS, & MIRRORS:**

- 2.1 Front and rear windows are required.
- 2.2 Windshield must remain at factory angle with a minimum of three (3) bars, and placed such that objects would be reasonably deflected from entering the driver’s compartment.
- 2.3 Rear view mirrors with a maximum width of 26 inches will be permitted.

## **3. FRAMES:**

- 3.1 Frame rails must be fabricated using a minimum of 2”x3”, .083 or 2½”x 2½“, .083 steel tubing.
- 3.2 Rear clip may be fabricated. Fabricated rear clips must use a minimum of 2”x 2”steel tubing with .083” wall.
- 3.3 Non-approved frame or suspension modifications are subject to a minimum weight penalty of 200 lbs.

## **4. ROLL BARS:**

- 4.1 A steel roll cage consisting of continuous hoop not less than 1-3/4 inch outside diameter and must have a wall thickness of at least .095.
- 4.2 Cage must be mounted to frame in at least six places with proper bracing to protect the driver.
- 4.3 Deleted.
- 4.4 Four or more side bars are mandatory and must be as parallel with the ground as possible and located perpendicular to the driver, so as to provide maximum protection for the driver.
- 4.5 Steel door plate must be securely welded to outside of driver’s side door bars and cover the area from the top door bar to bottom door bar from behind the driver including the footbox area with a minimum of 0.125 (1/8”) magnetic steel plate.
- 4.6 Must utilize a full roll cage and be approved by CNS officials.

**NOTE: ENGINE OPTIONS & SPECIFICATIONS ARE LISTED AT THE END OF THE RULES**

## **5. ENGINE LOCATION:**

- 5.1 A crank shaft height of 12” must be maintained. This will be checked with 5” blocks under the frame rails if needed.
- 5.2 All engines must be located so the center of the forward-most spark plug hole of the engine is 1 inch rearward of the center line of the upper ball joint.
- 5.3 All Engines must be centered in the frame, within a maximum of 1 inch offset for header clearance.

**6. EXHAUST:**

- 6.1 Mufflers are mandatory. 95 DBA OR LESS WILL BE STRICTLY ENFORCED!
- 6.2 Must extend under the car and behind the driver and be securely mounted.
- 6.3 Heat shields to cover exhaust system can be no more than 4 inches wide and no longer than the valve cover.
- 6.4 A minimum penalty for any car that is found to be too loud at any time by Track Officials, will automatically start at the back of the A-Main regardless of qualifying position.
- 6.5 Crossover headers allowed. No 180 degree, tri-y or merge collectors allowed when using this option. Chassis style headers with either Tri-y or merge collectors are **not** allowed.
- 6.6 There will be a \$500 Header Claim rule in the Late Model Division.

**7. IGNITION:**

- 7.1 Stock HEI ignition allowed, but cannot be used with an external coil.
- 7.2 Coil must be similar in design to OEM.
- 7.3 No MSD boxes or similar type products.
- 7.4 Aftermarket or performance modules allowed.

**8. COOLING SYSTEM:**

- 8.1 Only one radiator mounted in front of the engine is permitted.
- 8.2 No aluminum water pumps. No electric water pumps.
- 8.3 Electric fan permitted.
- 8.4 Minimum 2-quart catch can and must be securely mounted.
- 8.5 Only V-belt pulleys are permitted.
- 8.6 Radiator Pan: 29" max.

**9. TRANSMISSION:**

- 9.1 All cars must have stock OEM production passenger car 3 or 4 speed transmission with all working gears. No racing transmissions allowed.
- 9.2 T-10 transmissions will be allowed as long as they have OEM or OEM style/type gears with correct ratios and correct cut on gears- NO STRAIGHT CUT GEARS ALLOWED.
- 9.3 No automatic or racing transmissions allowed, unless pre-approved by CNS Track Officials, due to extenuating circumstances.
- 9.4 No Transmission gear may be closer than 1.23:1 of the final drive ratio of 1:1.

**10. CLUTCHES:**

- 10.1 Minimum 10 inch stock steel type clutch assembly only. Hydraulic throwout bearings are allowed.
- 10.2 No turning or drilling of flywheels are allowed, aluminum or special type flywheels permitted.
- 10.3 No multiple disc clutches permitted.
- 10.4 The minimum weight of the clutch, flywheel, and bolts shall be 30 lbs.
- 10.5 Full disc. No aluminum components.

**11. DRIVE SHAFTS:**

- 11.1 No aluminum or carbon fiber drive shafts, yolks, or slip yolks allowed.

11.2 Must have a minimum of two 2 inch wide X ¼inch thick 360-degree brackets placed around the drive shaft fastened to floor or cross member preventing the shaft from being dislodged & dropping onto the racing surface. All brackets must be approved by CNS officials.

**12. REAR END:**

12.1 No cambered rear-ends allowed.

12.2 No aluminum center sections or components are allowed. Aluminum lowering blocks and drive plates are allowed.

12.3 Welded spider gears or steel spool may be used. No ratcheted or limited slip rear-ends allowed.

12.4 No gun-drilled or titanium axles allowed.

12.5 No titanium lower input shafts allowed.

12.6 No rear sway-bars allowed.

12.7 Final drive ratio must be between 5:00 and 5:43.

**13. BRAKES:**

13.1 Working calipers or drums on all four wheels is required.

13.2 OEM brake parts only. No carbon fiber. No aluminum calipers. No aluminum components.

13.3 Calipers must be solidly mounted.

13.4 Rotors cannot be lightened or drilled, and must not be less than .060 inches of minimum. (i.e. Minimum stamped on rotor is 1.2 inches, cannot be measured less than 1.14 inches).

13.5 No solid rotors allowed.

13.6 Racing type brake pedals and master cylinders permitted.

13.7 Brake bias adjuster or valves are permitted.

**14. TREAD WIDTH:**

14.1 78 inches maximum, measured from the outermost part of the tire, at spindle height, zero tow in, front and rear. Must fit CNS gauges as presented for inspection – No tolerance.

**15. WHEEL BASE:**

15.1 107 ½ inches minimum.

**16. FRONT SUSPENSION:**

16.1 Only one shock per wheel.

16.2 A factory stock production front stub must be used. *Fabricated Camaro stubs are also allowed. This must fit the approved CNS jig. No twisting of sub-frames (stock or fabricated when mounting to chassis. Any alteration of pickup points will disqualify car from competition.*

16.3 *All stock suspension and steering mounting locations must be used and unaltered. No lightning or excessive cutting of factory frame rails are allowed.*

16.4 Any stock production lower “A” frames are permitted. No modifications or alterations of lower A-frames except for aftermarket bushings (bushings only), no spherical bearing or monoball bushings allowed, sway bar mounts, and lower shock mount.

16.5 Front coil spring must be mounted in the stock original position. Ball joint mounts may be altered to permit the use of a larger ball joint, but may not relocate the ball joint.

16.6 No modifications or alterations of spindles except for reaming the ball joint hole.

16.7 Any OEM steel spindles only. Spindles may be interchanged within manufacturer’s line.

- 16.8 Front end components must remain stock and in stock location.
- 16.9 After-market steel upper control arms are permitted. Aluminum cross shafts are permitted. Stock, non-adjustable ball joints with OEM specifications must be used; upper control arm mounts may be changed. Rebuildable ball joints are permitted provided that they must be removed from the car to rebuild them. Different length studs are allowed.
- 16.10 After-market non-externally-adjustable steel twin tube shocks are permitted. No aluminum shocks, mono tube shocks, external shock reservoirs, or shruader valves are permitted.
- 16.11 Steel weight adjusters are permitted but, cannot be gun drilled.
- 16.12 The outer tie rod end only can be replaced with a heim joint and it needs to be constructed of steel and may be attached to the spindle in any manner.
- 16.13 Multi-piece sway bars are not allowed, only single piece construction.
- 16.14 No coil bind, bump stops, no bump springs or any device that will limit travel.
- 16.15 Aftermarket center link will be permitted (Howe Part # 23396 or All-Star Part # AL56330).

## **17. REAR SUSPENSION:**

- 17.1 Only one shock per wheel.
- 17.2 Steel panhard bar with steel mounting brackets only.
- 17.3 Only one solid steel upper link allowed. All mounting hardware must be made of steel, and can be fabricated.
- 17.4 Steel trailing arms permitted. Location optional.
- 17.5 Three-link suspension.
- 17.6 Truck arms allowed with solid bushing only.
- 17.7 All heim joints must be made of steel.
- 17.8 Must use 5 inch diameter springs.
- 17.9 Rear weight-jackers are optional, if used they must be made of steel.
- 17.10 Spring and coil mounts must be made of steel and can be fabricated. Location optional.
- 17.11 No coil eliminators (sliders) allowed.
- 17.12 Leaf springs are allowed.

## **18. STEERING:**

- 18.1 Steering linkage must remain factory stock. Only stock components will be permitted.
- 18.2 Steering Quickener is allowed.

## **19. WHEELS & TIRES:**

- 19.1 Steel wheels only. Maximum width is 8 inches.
- 19.2 It is mandatory that all wheel studs be replaced with ½inch or larger studs.
- 19.3 No wheel weights allowed.
- 19.4 Mandatory track tire will be the Hoosier 8”F53 for the left and F75 for the right. Tires will be limited to 4 tires per event (2 rights and 2 lefts).All tires must be purchased at CNS and will be marked –If a driver is found to be using tires that have not been marked, they will automatically be disqualified for the evening with a minimum loss of points and prize money.
- 19.5 No wheels or tires protruding outside of body panels.
- 19.6 Wheel Spacers allowed, with minimum of 3 threads showing outside of lug nut.

## **20. WEIGHT (Note: Weight *MUST* be posted on Passenger A-Pillar!)**

- 20.1 Up to 365 Maximum C.I.D. 3,050lbs.. Minimum.
- 20.2 Over 365 Minimum C.I.D. 3,200 lbs. Minimum. (small blocks only)

- 20.3 Crate Engine 3,000 lbs. Minimum  
20.4 The maximum left side weight shall be 57% of total weight.

## **21. FUEL**

- 21.1 RACING FUEL ONLY permitted and must be purchased from CNS directly.  
21.2 Racing fuel shall not be blended with any other gasoline or any additives, aniline, or its derivatives, nitro compounds, or other oxygen containing compounds.  
21.3 It is the competitor's responsibility to ensure that fuels are not mixed by using previously used storage containers.  
21.4 Icing or cooling of fuel system will not be permitted in the pit or racing areas.  
21.5 Icing, Freon type chemicals or refrigerants may not be used in or near the fuel system.  
21.6 Pressure systems will not be permitted.  
21.7 Any concealed pressure type containers, feed lines, or actuating mechanisms will not be permitted, even if inoperable.

## **22. FUEL TANK**

- 22.1 Stock gas tanks must be removed and replaced with a fuel cell with 22 gallons maximum.  
22.2 Fuel cell must be enclosed in approved metal container. Containers must be securely mounted behind the driver in the trunk area and have all steel braided fuel lines or lines sealed in pipe or conduit, running under the floorboard.  
22.3 Fuel system must be well protected from rupture and must have a flapper or check valve in the vent hose.  
22.4 Fuel cell height 9 inches minimum, measured from the bottom of the cell to the ground.  
22.5 It is recommended that fuel cell be supported by three straps a minimum of 1 inch square tubing and secured by at least two straps length wise and two cross wise –all bolted to the frame.  
22.6 A reinforcement plate of not less than 1/8 inch magnetic steel must be installed behind the fuel cell. Plate must be welded to cage and must extend the entire width and height of the fuel container.  
22.7 Only one (1) gasoline filter may be used between the fuel cell and fuel pump. The location and size of the filter must be acceptable to CNS Officials.

### **Notes:**

**OUT-OF-TOWN CARS:** CNS invites all Out of Town competitors. Because of differing levels of competition, CNS reserves the right to adjust gear, total or car weight bias on an individual basis.

## **ENGINE REQUIREMENTS AND OPTIONS**

No external vacuum pumps or pan-vacuum systems allowed on either engine option.

### **ENGINE OPTION 1: Crate Engine**

Engines must be sealed by the manufacturer and must remain in the "as shipped" condition. The Track Officials reserve the right to confiscate, impound and/or replace any competitor's engine at any time. Competitor's refusing confiscation, impounding and/or replacement, will be disqualified from the event, and all future events until engine issue has been solved. Disqualification includes forfeiture of all monies, points and contingencies earned for that event. Teams may be subjected to additional fines, penalties and or point's loss, based on inspection of the engine. Teams fined or penalized for engine infractions are not eligible for competition until all fines and/or penalties have been fulfilled or paid.

- A. No aftermarket engine dampers are permitted.
- B. Oil coolers are recommended.
- C. Use of or installation of an open or closed loop vacuum system, to evacuate air from the engine is a Speed enhancing alteration and will subject the team(s) to all penalties as described in Engine Option 1 Sealed Component Violation.
- D. Melonized (hardened) distributor gear must be used on distributor to prevent engine damage.
- E. Requires an externally balanced flywheel

### **Approved Engine ONLY**

GM part number 88958604

### **Carburetor of Engine Option 1 ONLY**

Holley 650 CFM 4150 HP carburetor, part number 80541-1, “box-stock”, is mandated, no exceptions. Carburetor must be securely fastened to the intake manifold with one (1) .0625-inch (1/16”) or smaller flange gasket. Spacers or drop-in spacers, alteration, physical changes, machining, re-shaping or tampering with any part of the original parts, internal or external, is prohibited. Only Holley replacement parts are permitted for use and must match original parts:

- Jets
- Bleeds
- Needle and seat
- Emulsion bleeds power valves
- Accelerator pump nozzles
- Accelerator pump cam
- Arm and linkage must remain on carburetor, but can be adjusted so that the secondary accelerator pump does not work*

CNS reserves the right to impound and/or confiscate any carburetor at any time during or after an event. Failure to comply with this will subject the team(s) to disqualification from the event and forfeiture of all monies and points earned for that specific event as well as subject the team to additional penalties and or probation. Failure to relinquish a confiscated carburetor or component(s) result in an indefinite suspension from competition until such time as illegal part has been received by CNS TRACK MANAGEMENT as well as possible fines.

### **ENGINE OPTION 2**

Minimum 311 C.I., American made V-8 steel or cast iron engine, OEM stock. May be interchanged in family line of car only, i.e.: any Chevrolet may be installed in any other GM car, but not a Ford or Mopar. Engine must match Frame / Chassis being used, body make optional. ~~No engine set back~~ 1” Motor setback shall be allowed. Engine must be located where #1 spark plug lines up with center line of upper ball joint. No lowering of engine allowed. All engines must be assembled with stock OEM type parts only. The distributor must mount in the stock location and maintain the same firing order as a factory produced engine for the make and model engine being used. All engines must be assembled with Stock OEM type parts only. A ¾inch plug must be installed in the oil pan for inspection; the access hole must be in line with a connecting rod journal. No roller type cam bearings allowed. Stock type magnetic steel connecting rods with stock length for engine being used, i.e.: 350 C.I. 5.70”. Connecting rod beams may be cleaned and peened for strength. Only flat tappet, magnetic steel hydraulic or solid lifters are permitted. No roller tappets mushroom, or radius valve lifters allowed. Lifters must be original size and in stock location for engine block being used. Flat top stock with skirt or after-market equivalent, stock piston with stock pin location. Piston cannot come up higher than block deck surface. Minimum ring 1/16 1/16 3/16. No gas ports.

Only flat tappet cam permitted. Roller rockers permitted. No stud girdles allowed. Must have stock stroke for engine being used. No internal or external polishing or lightening of block allowed. No internal painting. Maximum compression ratio not to exceed 10.5 to 1. Stock magnetic steel lifters only. Must contain snap ring. No mushroom or radius lifters allowed. No rev kits allowed. Lifter bore to remain stock and in stock location for engine being used. Stock harmonic balancers only. Valve train must be steel, No composite or titanium allowed. Oil pan sumps may be enlarged, must be stock appearing, straight sides must be maintained and must be steel. No dry sumps allowed. No belt or gear driven timing components allowed. Crank must weigh a minimum of 48 lbs. Inertia balancing not allowed. Oil coolers allowed. No lifter bore truing allowed.

### **CYLINDER HEADS:**

1. All cylinder heads must retain all factory dimensions and configurations as cast.
2. Valve size must be stock for heads being used, on all engines. 1.94 –1.5 or 2.02 –1.6 valves permitted. Vortec heads must use 1.94 –1.5 valve. No Bowtie Vortec heads.
3. Only one flat stock-type standard gasket may be used between the head and the intake manifold.
4. No wedge type gaskets or metal spacers allowed.
5. Guide plates and screw in studs are permitted.
6. Head may be machined for bigger valve spring and push rod clearance only.
7. Only steel valve springs and retainers are permitted.
8. No angle plug or bowtie heads are allowed.
9. Mandatory rocker arm ratio of 1:5 or 1:6 is permitted.
10. CNS reserves the right to impound 1 head for inspection by outside independent sources. If legal, head will be available no later than the following Wednesday at 12:00 noon.
11. No titanium or hollow stem valves allowed. Undercut stem valves allowed.
12. Absolutely no modifications/alterations allowed. This includes grinding, porting, polishing, etching, coating, painting, acid dipping, port matching or increasing entry port size. No, machine or hand work will be allowed above the valve in the “bowl area”.
13. The following aftermarket stock replacement unaltered cast iron cylinder heads will be approved for use in competition:
  - E-Force P/N 175679 Casting 3 10024561
  - World Parts P/N 43610
  - Ford and Chrysler participants call for more information

### **INTAKE MANIFOLD:**

1. The following after-market aluminum intake manifolds are permitted: Edelbrock Series Chev-#2101, Chevrolet with Vortec #2116, Chrysler #2176, Ford 2181, 2665, and 2750. Early design manifolds carrying the same part number will not be allowed.
2. 2-bl or 4-bl cast iron manifold is permitted provided it is OEM for a production car. No marine applications.
3. Absolutely no modifications/alterations allowed. This includes grinding, porting, polishing, etching, coating, painting, acid dipping, port matching, increasing entry port size. No beveling, or machining of the carburetor mounting surface allowed.
4. Intake must be approved by CNS officials.
5. Intake may be machined down internally 2 inches from the top of the manifold.

### **CARBURETOR:**

1. Stock Holly #R4412 2-bl 500 cfm is the only legal Carburetor. Carburetor must meet Holley specifications.
2. No polishing, grinding, or drilling (i.e. Metering block) of holes allowed.
3. Choke, blade, and rod may be removed.



4. Size and shape of boosters must not be altered.
5. Booster height must remain stock.
6. Jets of any size may be used.
7. Venturi area must not be altered in any way.
8. Casting ring must remain completely visible and may not be removed.
9. Base plate must not be altered in size or shape.
10. No holes may be drilled in the base plate.
11. Stock butterflies must not be thinned or tapered.
12. Screw ends may be cut even with the shaft, but screw heads must remain stock.
13. Throttle shaft must remain standard and must not be thinned, cut or nicked in any matter.
14. Only a one piece metal carburetor spacer a maximum of 1 inch, may be installed between the intake manifold and the carburetor. Spacer may have no taper or bevels. No anti-reversion or similar machining allowed.
15. The maximum gasket thickness shall be .065.
16. No electric fuel pumps allowed.
17. No cool air boxes allowed. No forced air devices. Air deflector must be attached to the body only.
18. The top and bottom of the air filter housing must be solid and must be the same diameter. A maximum of a one inch lip will be permitted from the air filter element to the edge of the air filter housing top and bottom. No heat or air deflectors attached to the air cleaner are allowed.