

## A Hot Lap of the Virginia International Raceway (VIR) Full Course

### Turn 1 - Turn 2

Coming down the Pit Straight, the second longest straight of the 3.27 mile course, begin by bending the car gently to the right to negotiate the “kink” in the Pit Straight. Turn-in should be before the survey marker on driver’s left just before the Start/Finish line. Apex at the tree on drivers right after the starter’s stand. Allow the car to drift out to the left at the exit of the “kink.”

Use the gentle uphill entry of Turn 1 to compress the car and brake enough to allow the car to begin one arc when you turn the wheel to the right. Turn-in is right at a point directly across from the beginning of the inside curbing. An increasing radius complex, Turn 1 and Turn 2 have a single apex near the end of the first inside curbing. The goal is to not have to come out of the throttle or tighten the arc of the steering wheel after initial turn-in. Control the radius of the car’s path with the throttle, entering Turn 2 with the left side of the car close to the end of the curbing on the left side of the track as the road begins to rise and continuing the arc to the right. The key is to fully accelerate at the earliest possible opportunity, as the “kink” to the left is not significant enough to have a turn number assigned to it.

### Entry to NASCAR Turn (Turn 3)

Moving through the fast left sweep to the left, focus only on letting the car track out to the right in order to get the car straight for entry and braking into the decreasing radius Turn 3, or “NASCAR Bend”. Richard Petty, Curtis Turner, local hero Wendell Scott and David Pearson in the Trans-Am® race of April 1966 all christened this turn by falling off here repeatedly!

Aiming for the opening between the light pole on the left and the Tech Barn on the right, drive DEEP into the corner on a diagonal from the left apex at the kink to a point all the way on the right, brake in that straight and decisively turn in, being careful with the throttle. Turn-in is two car lengths before a point directly across from the beginning of the inside curbing. Apex on the inside curb at least two-thirds of the way around; opening the wheel and tracking out in preparation for the second slowest corner of the track, the treacherous Turn 4.

### Turn 4 and “The Snake”

The goal is to “give up” Turn 4 to get a good launch out of Turn 5. Be careful to brake more fully than you think necessary, slow more and turn in later in order to maintain control and establish a rhythm that can be continued through the “Lower Esses”, Turns 5 and 5A. The road in the short straight at the exit of Turn 4 is severely crowned; try not to “overcook” the entry of Turn 4 and end up crossing the centerline and onto the area on drivers right after the end of the inside curbing at Turn 4, you’re likely to fall off! After touching the inside left front wheel on (and over) the end of that inside curb, drive diagonally from the left to the right and turn right into Turn 5, placing the right front wheel against the curbing that projects furthest. Track out to the curbing on the left, but don’t touch the curbing on the outside...

Arcing the car in an open parabola, stay against the curbing on the left only for a short time, delaying turn-in for the second right, Turn 5A, by pausing momentarily in the short straight between the two turns. Turn earlier to cross the crown of the road into the “dip” or “pocket” near the apex of Turn 5A. Use that “dip” after turn-in to breath the throttle and rotate the car to the right for a tidy exit. Vision is limited so familiarity with the course configuration is vital before trying to “attack” this section of the course. A flick left, then right, then left again leads you onto the straight going under the “Cross Over Bridge.” Stay to the right against the curb at track out and begin to think about negotiating the tricky and unforgiving “Uphill Esses.”

### The Climbing Esses

These “bends in the road” are deceiving in their approach. Because of the elevation changes, cars easily become unsettled at the precise moment that the driver wishes to change direction, mandating precise car placement critical for success. Begin by bending the car to the left where the pavement ends on the right for the North Course cut-through, touching the curbing on the left at mid-point, then begin a more decisive turn-in to the right, apexing the curb at Turn 7 at the end of the curb. Turn-in should have you crossing the center seam to the right just before the beginning of the inside curbing at Turn 7. The car is very light here and if the car is not pointed straight as it becomes unweighted, it is possible to understeer

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off to the left or TTO off to the right. Followed by another left, build speed while preserving a “shallow” exit from each of the Esses by touching the curbs late in T7, middle in T8, early in T9.

Being aware of the small jump immediately after the last right hand apex curbing at Turn 9, continue the arc to get the car back to the right side in preparation for Turn 10, “South Bend”. Under no circumstances unless you are passing should you be left of center between the exit of Turn 9 and the entrance of Turn 10. Entering all the way on the right by aligning the right side of the car parallel with the right side of the track, pick a point for an early to centrally located apex on the curbing, turning in just before you see the beginning of the curbing and being ready as the road drops away. Be under power when going over the crest of the “Uphill Esses”. Tracking out to the curb going downhill, fight the tendency to place one or two wheels off on the right by making sure to touch the inside apex curbing at Turn 10, “South Bend”.

### Turn 11 and Turn 12 (Oak Tree)

Driving straight from the exit of Turn 10, move diagonally across the track from the right to the left in preparation for Turn 11, the uphill, on-camber right leading into the slowest corner of the track. Braking for Turn 11, place the left front wheel very close to the edge of the road in preparation for a slightly early apex on the curbing to the right, aided by the uphill and on-camber nature of the corner. Conceptually similar to the Turn 6-7 complex at Road Atlanta and predating it by over a dozen years, it is critical to remain in control of the car to attain an effective “launch” off “Oak Tree Turn” onto the back straight.

After negotiating Turn 11, aim (on a diagonal from the Turn 11 apex curbing or from a slightly wider path) for the middle of the curbing on the left side of the track, coming into “Oak Tree” under COMPLETE control. When the left front tire is at the middle of the outside curbing on the left, decisively turn in more than you think you have to, being careful with the throttle lest the downhill, off camber exit catch you out. As the steering wheel unwinds, preferably before reaching the apex on the high curb most of the way around the corner, apply throttle progressively. Your track out should be fairly far down the exit curbing on the left.

### Back Straight, Turn 14 and Turn 14A

Passing the South Course pit lane on the left, move gently to the right, taking the first crest (after the Madison Avenue testing section on the left) on the right against the curb and align the right side of the car parallel with the right side of the road. Braking should not occur until you can feel full compression at the bottom of the final dip before climbing up the hill into Turn 14. “Bend” the car to the left before the beginning of the pavement marking the return of the North Course cut-through on the right. Using the compression of going uphill, get the car slowed enough to easily bend the car left, with the goal being to get the left front wheel to “follow” the inside curbing around the corner and over the crest as you plan your final braking. Align the left side of the car parallel with the left side of the road after the end of the left side curb at Turn 14. Touching the end of the curb with the left front wheel, brake progressively heavier and be ready!

Trailing off the brakes, get back on mild “station-keeping” power and decisively turn in to the right to go through the right hand “Roller Coaster,” the beginning of the daunting “Downhill Esses.” Turning the car to the right through Turn 14A as the world drops away, place at least a car width between the right side of the car and the beginning of the right hand, inside curbing before placing the right front tire against the inside curbing most of the way around. The car should not be left of center (overcooking Turn 14A will result in crossing over a very high crown and causing major understeer!) before having to turn left into Turn 15, the first of two left hand corners going down the hill. Aim for the worker station and drive diagonally from the right to the left to get down to the apex curbing at Turn 15, short-shifting and applying full throttle in most cars.

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### Turn 15, Turn 16 and Turn 17 (Hog Pen)

Using the leveling out of the track to “buy” grip, touch the left front wheel to the left side curb halfway through, realizing that a great deal of time can be made here by tracking out all the way to the end of the exit curbing on the right side. Pausing for a moment and braking earlier and easier rather than later and harder, as in Turn 14, “bend” the car in to reach and follow the apex curbing on the left, Turn 16, allowing the left side of the car to touch the middle third of the curbing. In order to get the car transitioned for the beginning of the double apex, constant radius, right hand “Hog Pen Corner”, Turns 17 and 17A, you must allow the car to travel straight for just a moment at the end of Turn 16 before turning in for Turn 17.

As “Hog Pen” leads on to potentially the quickest straight (for many cars), it is imperative to negotiate it successfully. After lining up the left at the apex of Turn 16, get back on mild power, more aggressively after the car settles where the road comes up to meet you. Drawing a perfectly symmetrical arc through both Turn 17 and 17A, use the elevation changes to “buy” grip and position the car. Get the right front ON the first part of the curbing at Turn 17, track out all the way left just before halfway through the length of the outside curbing, not necessarily touching the second right hand inside curbing, the apex for 17A. Track out to the curbing at the lowest part of the curbing and begin another lap of Virginia International Raceway!

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