## Hot Lapping Virginia International Raceway's North Course

Coming down the Pit Straight, bend the car gently to the right to negotiate the "kink" in the Pit Straight. Turn-in should be about ten car lengths before the Start/Finish line. Apex at the tree on the right and allow yourself to drift left, ultimately placing the car parallel on the left side of the road.

T1: Use the gentle uphill entry of Turn 1 to compress the car and shorten the end of the braking zone, getting the car slowed down to a point that will allow the car to follow your directions completely. Turn-in is where the left front tire goes over the yellow reflective tape at track edge on the left after the turn-in arrow. Turn 1 has a single apex $7 / 8$ around the 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.

T2: After decisively turning in and getting nearly all of your turning done very early in T1, control the radius of the car's path with the throttle, drawing the largest possible arc and coming out of Turn 2 closest to the outside curbing. Continuing the same steering input after reaching the outside curbing at T2 will bring you back to the right side of the track well beyond the end of the inside curbing. The key here is to accelerate fully for the longest possible time, up to the middle of the kink. Try not shutting off until your left shoulder reaches the middle of the left curb, then focus on letting the car track out and create a relatively stable braking zone on a diagonal towards your turn-in point for T3.

T3: Aiming just left of the Tech Barn, looking high at the light pole and at the tall trees on the right side of the false grid tree line, drive DEEP into the corner with the car almost to the edge close to the grass, decisively turning in under at least 10-30\% throttle. Turn-in is a point on the outside of the corner entrance two car lengths before the beginning of the inside curbing. Apex on the inside curb two-thirds of the way around; open the wheel and track out to the right side of the track in preparation for the slowest corner of the track, Turn 4.

T4: The goal is slow the car down more than you think you have to in order to apex near the end of the T4 curbing, turning back to the right from the left half of the road and driving across the crowned center of the road to the apex curb at Turn 5. Be careful to judge your turn-in point for Turn 4, brake harder and turn in later in order to maintain control and establish a rhythm that can be continued through the "Snake", Turns 5 and 5A. Crossing the centerline to the right too early in Turn 4 because of an early apex or because you were going too quickly will put you off the track or at the very least, make you "late" for the entire following complex.

T5: Entering Turn 5, the "early" apex is the protruding curbing on the inside, then tracking out to the curbing on the left on a gentle parabola or arc that brings you back over to the right side almost a little early for T5A. Typically, most cars choose to shift up here. Don't touch the outside curb or pause too long before turning to the right for 5 A .

T5A: A fair number of expensive accidents here could be avoided with a trace more study and discipline with the steering and with the throttle. Turn 5A must be negotiated with a touch more turning radius than T5 by pausing momentarily in throttle application (or effecting a slow shift) and "breathing" the throttle to allow the car to "tuck in" to the little dip in the road just before the T5A apex curbing. If you hit two apexes at VIR, please hit T5A and T10! Vision is limited so familiarity with the course configuration is vital before trying to "attack" this section of the course. Remember to rotate the car to the right to "point" your way out of the "Esses." If you run out of road at the exit of T5A, do NOT TTO (lift throttle or induce trailing throttle oversteer) but instead open the wheel and drive over the curb and the grass on the left, rejoining the course downstream. T6 and T6A are a flick left, then right, then left again leading you onto the straight going under the "Drive Over Bridge."

T7: Stay to the left, lining up the car parallel with the left side of the road in preparation for braking and turn in to the right for Turn 7, the super-elevated (banked), steeply uphill and deceptively quick
entry onto the North Course "cut-through." Ideally, the sensitive transition from braking to acceleration should take place before turn-in. Enter the infield paving at least a car width and a half from the right side of the road, with the goal of tightening the radius as the car squashes into the pavement as it climbs quickly up the hill. The turn is more than 90 degrees, so make certain to place the right front wheel against the curbing for some time near the end of the curbing, at which point you can unwind the wheel and track out precisely when the car becomes less weighted at the crest. Don't track out too far and definitely not onto the return road from the Patriot Course.

T8: Look for the curbing on the left and follow the gentle bend to the left through Turn 8. Turn in for the right should occur so that you can line the right side of the car parallel with the right side of the track after the curbing ends on the right through Turn 9.

T10: Make a decisive, early turn in to the left to go over the blind crest left ("Stevie Wonder" or Turn 10) keeping the left front wheel against the curbing for some time. Drive straight as the car becomes unweighted and after you can see where you are going and delay your turn to the right until the road comes back up to meet you.

T11: Stay close to the first curbing on the right as you crest, but the more important curbing is the second curbing, the apex of this constant radius pair of right hand bends, Turn 12.

T14: Your goal is to line up the car to drive straight out of the "esses" and align the left side of the car parallel with the left side of the track as you climb the last incline into Turn 14 before turning right into "Roller Coaster". Form a straight line braking zone while looking to the worker station (Station 14) just to the left and slow the car near the grass after the curbing on the left.

T14A: Trailing off the brakes, get back on mild "station-keeping" power and decisively turn in to the right to go through the right hand Turn 14A, the beginning of the daunting "Downhill Esses." Turning the car to the right as the world drops away, place at least a car width and a half between the right side of the car at the beginning of the right hand, inside curbing before placing the right front tire against the inside curbing $1 / 3$ to $1 / 2$ of the way around.

T15: Under no circumstances should you be left of center before deciding to turn left into Turn 15, the first of two left hand corners going down the hill. Use the leveling out of elevation to "buy" grip and touch the left front wheel to the left side curb halfway to $2 / 3$ from the end, a great deal of time can be made here, placing the car all the way to the left at the T15 apex (as the road comes up to meet you), tracking out all the way to the right near the end of the exit curbing. Try and stay on the throttle until your right shoulder reached the end of the right hand curbing.

T16: Pausing for a moment, brake and bend the car to the left by allowing the left side of the car to touch the middle $2 / 3$ of the left side curbing, paying attention to how early you can release the brakes when the car is perfectly straight and between corner loadings.

T17: After selecting entry speed for Turn 17, get back on the power (10-30\%) and only apply the throttle more aggressively after it becomes clear you will hit the first third of the apex curbing for T17. Then, as the car compresses and the road comes up to meet you between T17 and T17A, use progressively more ( $50-70 \%$, then $100 \%$ ) power to balance the car through the double apex, constant radius, right hand "Hog Pen Corner." As "Hog Pen" leads on to potentially the quickest straight, it is imperative to negotiate it successfully. Get the right front ON the first part of the curbing, track out to the first $1 / 3$ of the length of the outside curbing, swooping back to the right and coming close to the second curbing at T17A. Track out to the left curbing at the bottom of the dip and begin your climb back up the first part of the Pit Straight.
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