

Anatomy of a Corner

NNJR Track Side Classroom Series



Disclaimer

The techniques shown here have been compiled from experienced sources believed to be reliable and to represent the best current opinions on driving on track. But they are advisory only. Driving at speed at NJMP Lightning, or any other track, requires skill, judgment and experience. These techniques assume the reader has high performance driving knowledge and applies them as applicable to their level of driving experience.

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- Reminders: If you haven't driven since last October...
 - Your driving skills probably did not improve
 - The following may help get you back into the “flow”
- Always
 - Is the car ready?
 - Are you ready?
 - Physically?
 - Mentally?





- What is my focus/goal?
 - Specific skill?
 - Consistency (line)
 - Faster exit
 - Braking
 - Specific Corner(s)?
- How will I measure improvement?



- Goal: faster exit
 - Measure: exit speed, WOT position
- Goal: improve braking
 - Measure: V-Min, Slow Point/EOB
- Tool: Video log

Braking Metrics (MPH)

BOB
EOB
MaxBrake Brk (PSI)

Cornering Metrics (MPH)

V-Min
Apex speed
WOT
Yaw (rotation)
Steering Angle -
Steering Angle +
Throttle On

Cornering Metrics (position)

Turn -in
V-Min
Apex
Throttle - On
Throttle -WOT

Example for focusing on maximum exit speed

WGI	Turn 6		Turn 7		Turn 6		Turn 9		Turn 10		Turn 11	
	V-Min	V-Max	V-Min	V-Max	V-Min	V-Max	V-Min	V-Max	V-Min	V-Max	V-Min	V-Max
Lap 3	82	120	57	118	82	129	56	98	91	106	73	100
Lap 6	86	118	57	123	86	128	57	101	92	109	76	109
	4	-2	0	5	4	-1	1	3	1	3	3	9

Example for focusing on maximum entry / V-min speed

WGI	Turn 6		Turn 7		Turn 6		Turn 9		Turn 10		Turn 11	
	EOB	V-Min	EOB	V-Min	EOB	V-Min	EOB	V-Min	EOB	V-Min	EOB	V-Min
Lap 3	115	82	126	78	115	84	97	55	102	89	110	81
Lap 6	118	83	123	75	118	85	101	54	103	91	112	82
	3	1	-3	-3	3	1	4	-1	1	2	2	1

Individual goals by turn

WGI	Turn 6		Turn 7		Turn 6		Turn 9		Turn 10		Turn 11	
	V-Min	V-Max	V-Min	V-Max	V-Min	V-Min	V-Min	V-Max	EOB	V-Min	V-Min	V-Max
Lap 3	82	120	57	118	82	129	56	98	91	106	73	100
Lap 6	86	118	57	123	86	128	57	101	92	109	76	109
	4	-2	0	5	4	-1	1	3	1	3	3	9



- Goal: improve Turn 7
 - Measure: consistency
 - Measure: Exit speed
 - Measure: V-Min
- Tool: Video log
- Tool: Driving Checklist



Video Log Template



Corner	V-Max	BoB Position	Turn-In Position	EoB Position	V-Min	WOT Position	V-Max



NNJR Driving Checklist



- ❑ Stay on a reference point until you have full orientation, not just recognition.
- ❑ Release eyes to the next reference only after orientation is complete.
- ❑ Be sensitive to "feel" references (load, grip, weight transfer).
- ❑ No control input should ever surprise driver or car.
- ❑ Hit target BoB
- ❑ First 5% of brake application is deliberate and smooth.
- ❑ Hit turn-in reference point
- ❑ Clean trajectory, requiring zero mid-corner corrections.
- ❑ Utilize trailbraking to manage vehicle rotation, where appropriate.
- ❑ Last 5% of brake release is deliberate and smooth.
- ❑ Hit EOB reference point
- ❑ Exit Corners: Slow Point before apex, no throttle before apex.
- ❑ Apex: Tight on apex, car at correct angle.
- ❑ Entry Corners: Slow Point past the apex.
- ❑ Initial throttle application free of on/off moments.
- ❑ Rapid ramp from initial throttle to WOT (for most corners; exception is fast corners)
- ❑ Hit WOT reference point
- ❑ Weight transfer controlled throughout (front-to-rear and rear-to-front) with brake and throttle.
- ❑ Hit track out reference point (using all of track)



- Three phases:
 - Before the Event — preparation and mental rehearsal
 - Before Each Session — focus, triggers, and intention
 - After Each Session — review and reinforcement
- Use Driving Checklist
- *Reference: “Know When You’ve Nailed It” — Ken Hill, Motorsports Coaching*



- Choose the corner to focus on
- Set 1–2 initial targets for this corner at this event, e.g.:
 - Better braking — measured by V-Min (minimum corner speed)
 - Early WOT — measured by exit speed
 - Nailing the apex every time — confirmed by video review
- Create a “focus trigger” to use at the start of each session:
 - “Roll speed” — for better braking
 - “Patience” — for early WOT





- Identify the corner type: Entry, Exit, or Balanced — mark it on your track map
- Write down all known Reference Points:
 - BoB (Beginning of Braking), Turn-In, EOB (End of Braking)
 - Slow Point, Apex, WOT (Wide Open Throttle), Track Out
 - Include “feel” references: load, grip level, weight transfer
- Visualize complete laps, noting reference points, brake pressure, car angle, weight transfer, and rotation
 - Use Driving Checklist to ensure sufficient granularity in your mental rehearsal





- Choose a specific focus for this run — no more than 2 or 3 items from the Driving Checklist
- Repeat your “focus trigger” to activate your goal and prime your attention
- Prepare a “refocus trigger” for when distractions appear during the session:
 - Can be same or different from your focus trigger
 - Example: “Eyes Up”
- Keep it simple — one well-executed focus beats three poorly executed ones





- Write down what went well — specifically, progress on your session goal
- Review Driving Checklist and note your performance against each item
- Same time or later
 - Review video against the checklist
- Ask: “Did I do it right?” — not “What did I do wrong?”



- Pick one or two corners to focus on — deep focus beats wide coverage
- Use the checklist to sharpen Reference Points at each phase:
 - Before the event — preparation and visualisation
 - During the event — active focus and triggers
 - After the event — video and data review
- Checklist is an excellent start-of-season refresher

Reference and Source: “Know When You’ve Nailed It” — Ken Hill



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