



# The Strategies of **Zone Control** for Driver Wellness



## **Teens can Earn the Co-Driver Diploma — Before Driver Licensing!**

### **01. Establish Co-Driver Readiness**

1. Be mentally and physically fit as a Co-Driver.
2. Know how to detect and correct drowsiness.
3. Evaluate vehicle's surroundings on approach.
4. Control door swing; butt-in seating position.
5. Safety belts on; head restraints up; doors locked.
6. Windows up; driver has headlights on at all times.

### **02. See Clear Path Before Moving**

1. Search to Target Area for clear Path-Of-Travel (POT); identify Line-Of-Sight (LOS) blockages.
2. Turn head, evaluate POT before tires are turned.
3. Use Central vision to search Future Window.
4. Use Fringe vision to monitor Present Window.

### **03. Keep the Car in Balance**

1. Know how to make smooth and effective acceleration and braking actions.
2. Know transition pegs for vehicle balance.
3. Identify and know how to correct off-target skids.

### **04. Know how to Use Reference Points**

1. Know within 3-6 inches where the front, rear and sides of the car is positioned to the roadway.
2. Know where the car's sides and front are in relation to intersection curb lines.
3. Know positions of LP1, LP2, LP3, LP4, and LP5.

### **05. Use SAM for Zone Control Search**

1. Search SAM's A-Future Window to the Target Area for "Open" or "Closed" Zones.
2. Evaluate whether condition is a "Go" or "Slow."
3. Evaluate SAM's B and C Present Zones.
4. FIND LOS-POT (Line-Of-Sight, Path-Of-Travel) blockage critical seconds.
5. Search other zones for additional information.
6. Search other zones for an escape path.

### **06. Mastering Zone Control Awareness**

1. Know how to SOLVE LOS-POT critical seconds.
2. Know actions to take for "Go" or a "Slow" condition.
3. Know the best: speed control, lane positioning, and communication option for situations.
4. Know how to CONTROL the 4-second danger zone.
5. Know how to control the Point-Of-No-Return.
6. Read Cues of Traffic Signs and Pavement Markings.

### **07. Know how to Control the Danger Square**

1. FIND LOS-POT blockage and know how to CONTROL it.
2. When moving; 45-degree search of LOS-POT blockage.
3. When stopped: 90-degree deep search to target area.
4. Know staggered, legal, and safety stop positions.
5. Search for open gap or hole in traffic flow.
6. Check open left, front, right zones before entering danger square.
7. Know how to time arrival into an open zone.
8. When first at green light, look for pedestrians and red light runners.

### **08. Evaluate Rear-Zone-Control Conditions**

1. When the brake is used, check the Co-Driver Rearview Mirror for open, closed, unstable rear zone.
2. Identify tailgater type: charger, one pacer, habitual.
3. When stopped, monitor rear zone until there are "sand barrels".
4. Before car moves to LP4 or LP5, check B or C rear zones.

### **09. Know how to Control Separation Space**

1. FIND stopped or slowing vehicle, close in gradually.
2. When traveling at same speed as vehicles ahead, keep 4-seconds separation space to control the front buffer.
3. When stopped behind a vehicle, see its rear tires touching the road.
4. When the car in front moves, see if it's a "go" situation before your driver moves. Avoid making false starts.

### **10. Interact Courteously With Others**

1. Know how to send and receive communications in a timely and positive manner.
2. Empower yourself, reduce stress by being courteous.
3. Set a daily goal to be courteous to at least one person.
4. Avoid competitive, aggressive, interactions.

### **Master Strategies for EXPERT Routines**

- |                           |                             |
|---------------------------|-----------------------------|
| 1. Precision Turns        | 2. Danger Squares           |
| 3. Roundabouts            | 4. Timing Traffic Lights    |
| 5. Curves and Hill crests | 6. Precision Lane Changes   |
| 7. Nighttime Awareness    | 8. Strategies on Freeways   |
| 9. Passenger Control      | 10. Vision for Skid Control |





# Principles of Zone Control

## for Space Management Habits to Share the Road

Professor Frederik R. Mottola

### *General Principles*

1. Use Selective Attention Matrix (SAM) to search to your Target Area (A Zone); visualize your Path Of Travel (POT); evaluate its condition as “open” or “closed;” determine if the best approach speed is a “go” or a “slow.” Detect oncoming vehicles in LP2. When detected, look for an escape path and opportunity to be courteous. Detect and correct an “off-target” skid.
2. Search to FIND LOS-POT’s and “unstable” CRITICAL SECONDS at least 15 seconds away.
3. When the A zone is closed, adjust speed to arrive into an open zone.
4. To best control your Path-Of-Travel (POT), keep the most open space away from the worst problem. (With closed C Zone and open B Zone, take LP2).
5. When a LOS-POT (Line-Of-Sight, Path-Of-Travel) zone change is detected, check the opposite zone for additional information and for an escape path.
6. Use the acceleration, steering and braking controls in such a manner as to achieve a smooth balance of the vehicle.
7. SOLVE LOS-POT blockages and Critical Seconds with best speed control, lane positioning, and communication before reaching the 4-second danger zone.
8. Before entering the 4-second danger zone, reevaluate it for best CONTROL.
9. Cover brake and make 45° search at the 2-second PONR (Point of no return).
10. When both the left (B) and right (C) zones are closed, time your arrival to have at least one open side zone. If both are closed, take lane position one (LP1).
11. Any time LP1 is required, reduce speed.
12. Reduce speed as open space to the B, A, or C Zones is decreased.
13. Check the rear zone before, during, and after taking a braking action. Determine if rear zone is Open, Closed, or Unstable.
14. Identify tailgater type: Charger, One Pacer, Habitual. Use best communication.

### *Principles for Approaching Intersections, Curves and Hill Crests*

15. When approaching an intersection, prepare for a staggered stop. Find an opportunity to be courteous while entering. When moving, search LOS-POT at 45-degrees. When stopped, search 90° to target areas for a Hole or Gap.
16. Search the left, front, right zones of intersections in a sequence from best to worst LOS-POT condition.
17. When approaching a curve, use lane positioning to best separate from traffic and to best see into the curve.
18. When approaching a curve be able to see at least 4-seconds of the road. If not seen, reduce speed.
19. Search through the curve, or over the hill crest, for open or closed POT.
20. When approaching a curve, evaluate speed before reaching the apex. See if a speed reduction is needed to gain best traction control. Use Slide Space for speed control on the straightaway.
21. Approach a hill crest in LP1. Evaluate the left-front zone and know if LP3 is available as an escape option.

### *Principles for Making Turns and Lane Changing*

22. Before changing side position, check the outside rearview mirror. If necessary, make a forward head movement view of mirror to check blind area, or check the convex mirror.
23. When making turns and lane changes, use the least amount of space.
24. Before turning the steering wheel, turn your head in that direction to evaluate your POT.
25. Before turning the steering wheel, check your outside rearview mirror.
26. Use central vision to the target area. When fringe vision is aligned with the transition peg, accelerate.

### *Principles for Separation Space from Vehicles Ahead*

27. When there is a vehicle ahead, keep four-seconds of separation space.
28. When the vehicle ahead reduces speed, adjust your speed for gradual closure.
29. When stopped, be able to see the rear tires of the vehicle ahead touching the pavement.
30. When the car ahead moves, see its open space to avoid making a false start.