The Strategies of Zone Control

10 Habits Zero Crashes

Zero Crashes™

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 45º 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 90º 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.

Professor Mottola's
In-Car Coaching Guides
using
Zone Control Strategies

Teen's Name _____

City _____ State _____

Telephone Number _____

Pa
Na

Tel

Co
Na

Org

Tel

This section are pages from the **Mobile App** that is used to cultivate a teen's Zone Control Strategies into habits.

Phase 1 Points Earned _____

Date of Last Evaluation _____

Phase 2 Points Earned _____

Date of Last Evaluation _____

Phase 3 Points Earned _____

Date of Last Evaluation _____

Total Points Earned _____

Phase 1

Co-Driver Practice

In-Car Practice Guides

Professor Mottola's Driving MIND using Zone Control Strategies

Directions:

Perform the Driving MIND eCoach activities for preparation to Co-Driver Practice. Do these Co-Driver Activities at your own pace.

As a Co-Driver, from the front seat or from the back seat, select one Guide to concentrate on performing its actions as if you were the driver. When possible repeat that one guide two or three times. Then, rate yourself for the level of your skill according to this scale:

4 = No Hesitation You can perform the strategy without any thinking, no hesitation.

3 = Hesitated You are able to perform the strategy but it doesn't come spontaneously.

2 = Coached You are able to perform the strategy with some coaching.

1 = Practice You need more practice to better perform the strategy.

See the next slide for how to manage space. Perform each Guide until you earn a "4" rating.

The objective of the *Driving MIND* is to "Manage Space."

"Managing space" requires cultivating habits that spontaneously control the space the vehicle will be using. To cultivate habits, ***practice the same actions*** over and over until they take place without thought.

How To Practice

1. Start With An Okay Speed and Lane Position
2. Search to Target Area POT Open or Closed?
3. Find Critical Seconds LOS-POTs
4. Check other Zones
5. **At 8-15 Seconds** Get the Best **Speed Control, LP, Communication**
6. **Control 4-Second Danger Zone**
7. **Control 2-Second PONR**

1

As a Co-Driver search to the target area. Follow this sequence listed below. Pretend you are the driver. Think of what actions you would take. When at the 2-second PONR, cover an imaginary brake and make a 45ª search. Do this often to earn a 4 rating.

Searching Target Area to T.Area

1. Search To Target Area

4	3
2	1

- Find and describe the Target
- Describe Target Area
- Critical Second in Target Area
- Target Area Open or Closed
- Identify Targeting Path
- Respond To Zone Changes

2. Search 15-Second Range

4	3
2	1

- Identify LOS-POTs
- Respond to LOS-POTs

3. Know 4-Second Danger Zone

4	3
2	1

- Get best Speed Control
- Get best Lane Position
- Best Communication

4. Use 2-Sec. PONR (Point of No Return)

4	3
2	1

- 100% Focus
- Cover Brake
- 45º Search

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

2

Recognition Of LOS-POT

1. Identify LOS-POT Front Zone

4	3
2	1

- See to Target Area
- See 15-Second Range
- See Within Danger Zone

2. Identify LOS-POT Left-front

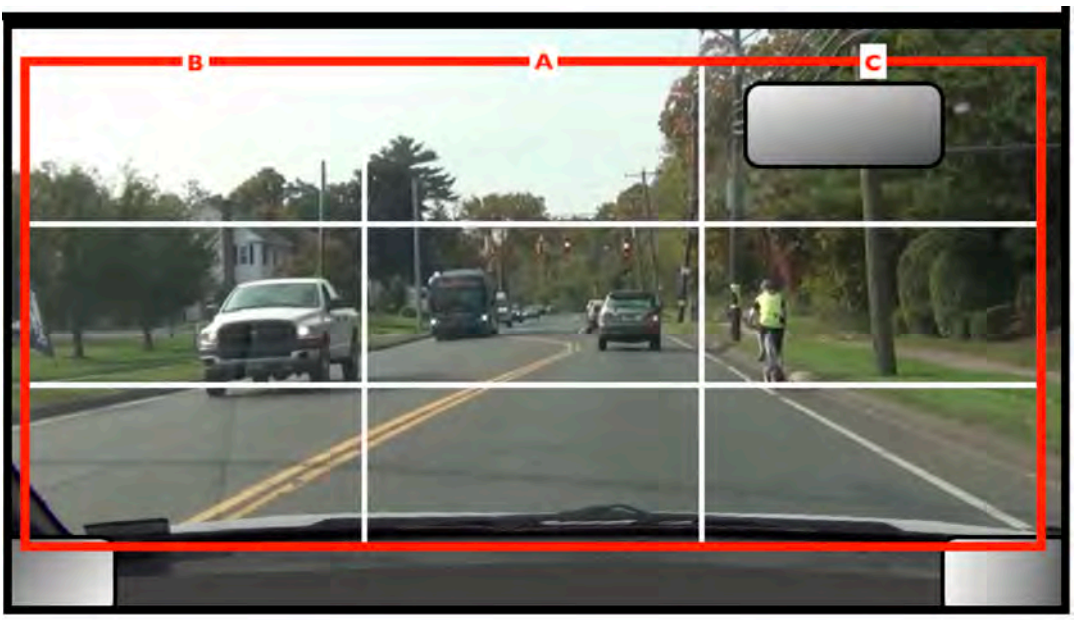
4	3
2	1

- FIND in Target Area
- SOLVE 15-Second Range
- CONTROL 4-sec Danger Zone

3. Identify Closed Zones:

4	3
2	1

- Closed Front Zone LOS-POT
- Closed Side Zone LOS-POT



Check Opposite Zones. After you FIND a side zone change, in this case the bicyclist in the C Window, check the zone in the opposite direction, the B Window. Making a speed reduction will create an open B Window.

Training Dates

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3

Use of Selective Attention Matrix

1. Start Evaluation of Future Window

- Is it a Go or Slow?
- Will there be LOS-POTs?

4	3
2	1

2. Look For Critical Second

3. Evaluate B and C Present Windows

- See an LOS-POT Blockage
- Check The Other Zones

4	3
2	1

4. Get The Best Control Action

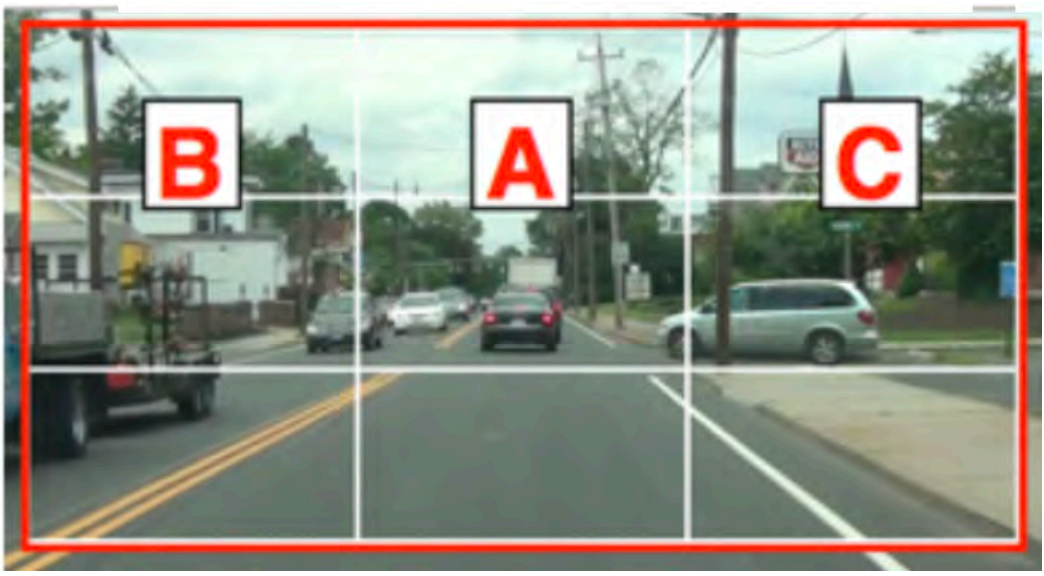
- Speed Control
- Lane Position
- Communication

5. Verbalize Conditions of the Windows

- Control Critical Second at PONR
- Full Attention - Adjust Speed & LPs

6. Practice For 10-20 Minutes

- Successful results achieved



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Take the Self-Quiz

You're a pedestrian ready to cross this street.

1. What does the Zone Control Language call this truck?

2. In addition to making a 90º search for vehicles and bicycles before stepping beyond this truck, where else should you search and what are you searching for?

3. Where is a 90º Search? Which search is shown here?

Response

1. This truck is an **LOS-POT Blockage.**
2. A search to the rear for vehicles making left turns into your path and search ahead for vehicle making a right turn into the street. **3.** A 90º Search is to the target area. A 45º Search is shown in the photo.

4

Buffer and Zone Control

1. Identify a Closed Zone

- Find Critical Seconds
- Find LOS-POT Blockage

2. Respond To Front Zone Change

- Check Rear Zone
- **Apply Speed Control Option**
- Keep Same Speed
- Decelerate
- Off-Gas, Cover Brake
- Off-Gas, Apply Brake
- Increase Speed

4	3
2	1

- **Take Best Actions for Control**
  - Check Opposite Zones
  - Apply Speed Control Option
  - Apply Lane Position
  - Send Communication

4	3
2	1

3. To Mesure Separation Space

- Take a guess
- Select a marker
- Vehicle ahead passes marker
- Begin counting
- Stop counting when you reach the marker

Training Dates

Rating:

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Take the Self-Quiz

You're a driver preparing to enter the road.

1. What type of space separation is shown in photos A and B? **2.** How do you learn to make accurate judgement of the size of separation space? **3.** Why do you want to time how many seconds it takes you to cross a road?

Response

1. Photo A shows a **Gap** between the next two vehicles. Photo B show a Hole in the traffic flow.

2 a. First find a marker to use. **b.** Take a guess of the space between two vehicles. c. When the back of the first vehicle passes the marker begin counting by 1000's. d. Stop counting when the the front of the second vehicle reaches the marker.

3. To be aware of the size of the hole needed to safely cross the street.

5

Separation from Vehicles

4	3
2	1

1. Adjust Front Closure Rate
2. Become Alert Slower Vehicle
3. Keep 4 Seconds Of Time
4. Try To Improve LOS

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5. Read Traffic 12 Seconds Ahead

4	3
2	1

6. Control The Rear Zone
7. Respond To Communications
8. When Front Car Slows
9. Explain Benefits

Empower Yourself With 4 Seconds

- You have time to become conscious of moments when you are closing in too fast on stopped vehicles.
- Your eyes can search beyond the vehicle in front.
- You remove the front vehicle's power to victimize you.
- Eliminate, or minimize, surprises from the actions of the first vehicle.
- Removes the stress that occurs when you are surprised by sudden braking actions of vehicles ahead.
- Makes you more conscious of the disadvantages of keeping a lesser amount of time.

Stay Out of the Inside Lane Except to Pass

While acquiring the 4-second habit, avoid traveling in the inside lanes (fast lanes) of highways. The most aggressive drivers are usually found there. Whatever speed you travel at, there will always be a vehicle on your tail wanting you to go faster.

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Co-Driver Mirrors

When the Co-Driver Is in the **Front Seat,** use a mirror mounted to the windshield, which can be purchased at www.NIDB.org, Safety Products.

6 Use a Co-Driver Mirror

Rear Zone Control

1. Use Of Mirrors

4	3
2	1

- After Seeing Zone Change
- Before & After Braking
- Stopped In Traffic
- Before & After Turns
- Before & After Lane Change
- Use Mirrors Effectively

2. Check Blind Areas

4	3
2	1

- Convex-Mirror Check
- Head Movement Check

3. Rear Zone LOS-POT Change

- Fast-Closing Vehicles
- LOS Restrictions
- **Tailgater Types**

4	3
2	1

- Charger
- One Pacer
- Habitual

4. Awareness Of Rear Condition

4	3
2	1

- Open • Closed • Unstable
- Take Action/Control Rear
- Effective Speed/Control Rear

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7

Be able to explain where these Reference Points are on your vehicle.

Reference Points for Co-Drivers

1. Discover Reference points for:

4	3
2	1

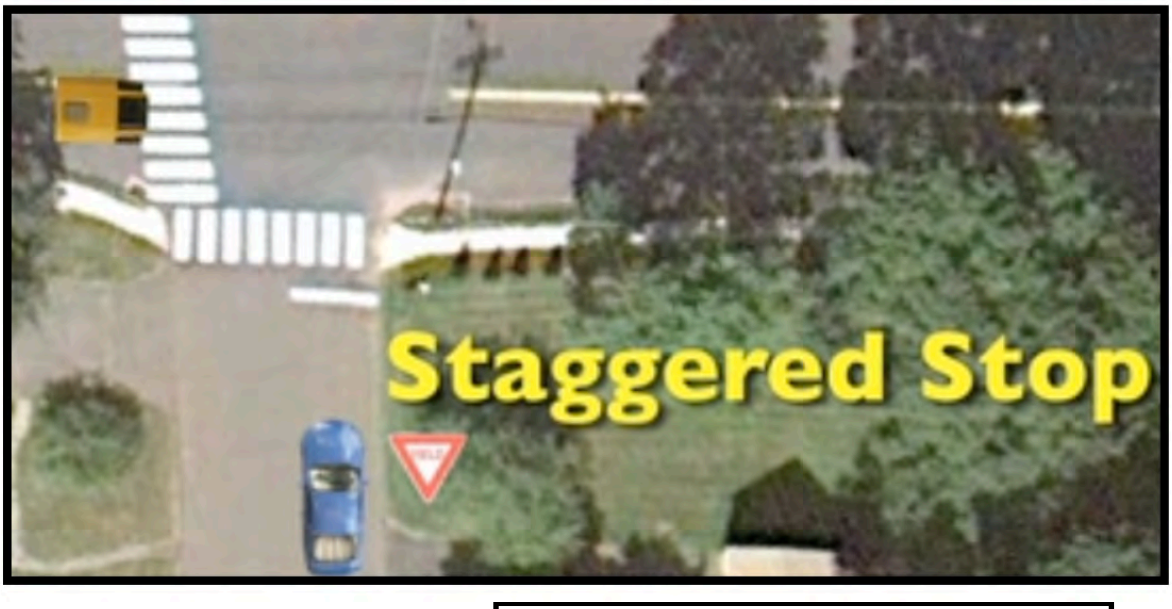
- LP2 • LP3 • LP1
- Side Position Right/Left Turn
- Forward Position for Turns
- Staggered Stop Position
- Legal Stop Position
- Safety Stop Position
- Tpeg for Right/Left Turns

Communications

1. Effective Use of:

4	3
2	1

- Signal Lights
- Headlights
- Brake Lights



Training Dates

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You can discover reference points in your driveway, without a need to move the car. Take a broom handle, a length of wood, a length of pipe, or any other straight object and place it to represent the vehicles's side and front limitation.

View the reference point from inside and outside.

See board and pipe in the circle.

This is the Safety Stop Position

Outside View
Front bumper even with curb.

Inside View: Reference Point

Take the Self-Quiz

You're a driver preparing to enter the road.

You're traveling at 30 mph. 1. Which speed control option should you take at this moment? **2.** Is the vehicle ahead a stable or unstable critical second? Why? **3.** What LP is the car ahead in? **4**. Why do you think it is in that LP?

Response

1. Cover the brake or Apply the brake is needed. **2.** This is an unstable critical second because the vehicle is braking. **3.** Car is in LP3. **4.** The driver intends to make a right turn.

8

Laws, Signs, Signals & Marks

1. **Respond To Stop/Yield Signs**
2. **Respond To Signal Lights**
   - Point Of No Return
   - Red Light & Right Turn On Red
   - Yellow Changing Lights
   - Green Light, Search Inter

4	3
2	1

3. **Signal Arrows: Gr, Yel, Red**
4. **Flashing Signal Lights**
5. **Respond to Traffic Signs**
   - Regulatory Signs
   - Warning Signs
   - **See Sign As Traffic Cue**
     - Check Rear Zone
     - Check LOS-POT
     - Check Escape Path

4	3
2	1

6. **Respond To Pave Markings**
7. **Demo Right-of-Way Laws**

Every time you see this sign:

1. Search for deer
2. Check Rear Zone
3. Reduce speed when deer is located.
4. Avoid braking while deer is hit.

Training Dates

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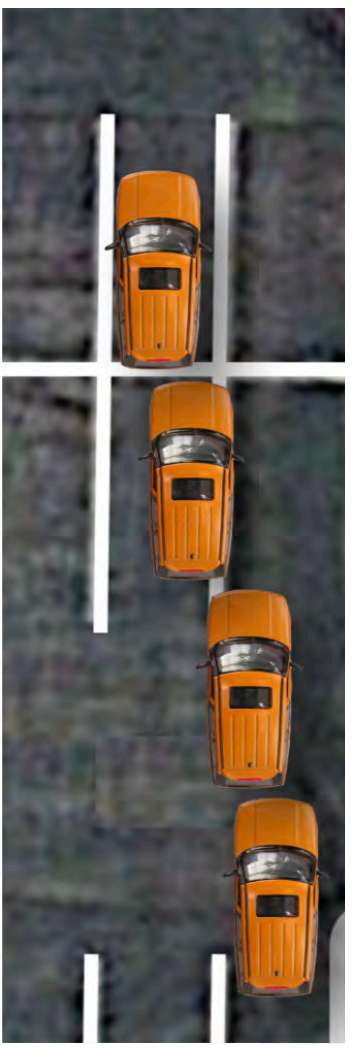
Lane Changes

4	3
2	1

1. Start in LP1
2. Check outside mirror
3. Move into LP2
4. Check outside mirror
5. Signal light on
6. Check blind area - move head forward and away from mirror.
7. When clear - move to LP3
8. Check outside mirror
9. Move to LP1
10. Turn signal light off



9.

7.

3.

1.

Training Dates

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Take the Self-Quiz

Read an action. Answer to yourself. Then, see the response below.

Precision Lane Change

1. Why Change?
2. Check Other Lanes
3. Mirror Checks
4. Signal For Communication
5. Move To LP 2 or LP 3
6. Check Blind Spot
7. Time Arrival Open Side Zones
8. Increase Speed If Needed
9. Enter LP 2 or LP 3
10. Release Signal Light Lever
11. Mirror Check
12. Best Lane Position

Responses

1. Consider what's to gain.
2. To detect other vehicle that may be there.
3. To see what conditions you have to the rear.
4. The signal light is like asking for courtesy.
5. LP2 for left lane change. LP3 for right change.
6. Check outside mirror by moving head away from mirror.
7/8. Adjust speed to time an opening to enter.
9. LP2 or LP3 provides others with an escape path.

Take the Self-Quiz

You experienced a Lane Departure as your car drifted off road while traveling at 50 mph on this Vermont highway. **1.** Point to where central vision and steering should be directed during this critical second
2. Should you Brake? If so, explain how and when to brake?

Response

1. Central Vision and steering is directed to a target downslope, as shown in this image.
2. No Brake until the vehicle is downslope in control. Then, a light braking to reduce speed to 5mph to get onto the road.

10 Night Driving

1. Adjust For Visibility Limits

- **Vehicle Readiness**
- Clean Lights, Windows, Mirrors
- Check brake lights, signal lights
- Keep Dash Lights Low

4	3
2	1

- **Driver Readiness**
- Avoid Glaring Lts; Recovery
- Depth Perception Evaluated
- Nighttime Envir. Problems
- New Moon, dark nights
- Rural Roadways, no lights
- Urban Areas, overload

2. Searching At Night

- Look Beyond Headlights

4	3
2	1

- Look To Target Area
- Use High Beam
- Look For Cars Without Lights
- See Curve & Intersection Early

3. Interacting With Others

- Look for Pedestrian Locations

4	3
2	1

- Dim High Beam
- Communicate One Flash
- To Car - 12 Seconds away
- No Flash Passing Trucks
- Use Other Cars' Headlights

Training Dates

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11 Manage C-Zone LOS-POT and Merge Areas

1. Search Future A-Zone Target Area

4	3
2	1

- Find C/B-Zone LOS-POT
- Evaluate Rear Zone
- Evaluate B/C-Zone
- Adjust Speed for Open Zone
- Select best LP
- Control 4-Second Danger Zone
- 100% Focus at 2-Sec PONR

2. Identify Merge Sign in A-Zone

4	3
2	1

- Evaluate B/C Rear Zones
- Adjust Speed for Open Zone
- Control 4-Sec Danger Zone
- Take LP2 or LP3
- Get Open Zone at Merge
- 100% Focus at 2-Sec PONR
- Help vehicles Enter Flow

Challenge: (Repeat this 12 times.) While being a Co-Driver, pick out any traffic sign and pretend it is a merge sign. Select an imaginary lane on a freeway. When you are even with the sign, you are at the 4-Second Danger Zone. What do you need to do to control the next four seconds?

Training Dates

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Phase 2
Behind-the-Wheel
In a Parking Lot

In-Car Practice Guides
The Driving MIND

Zone Control Strategies

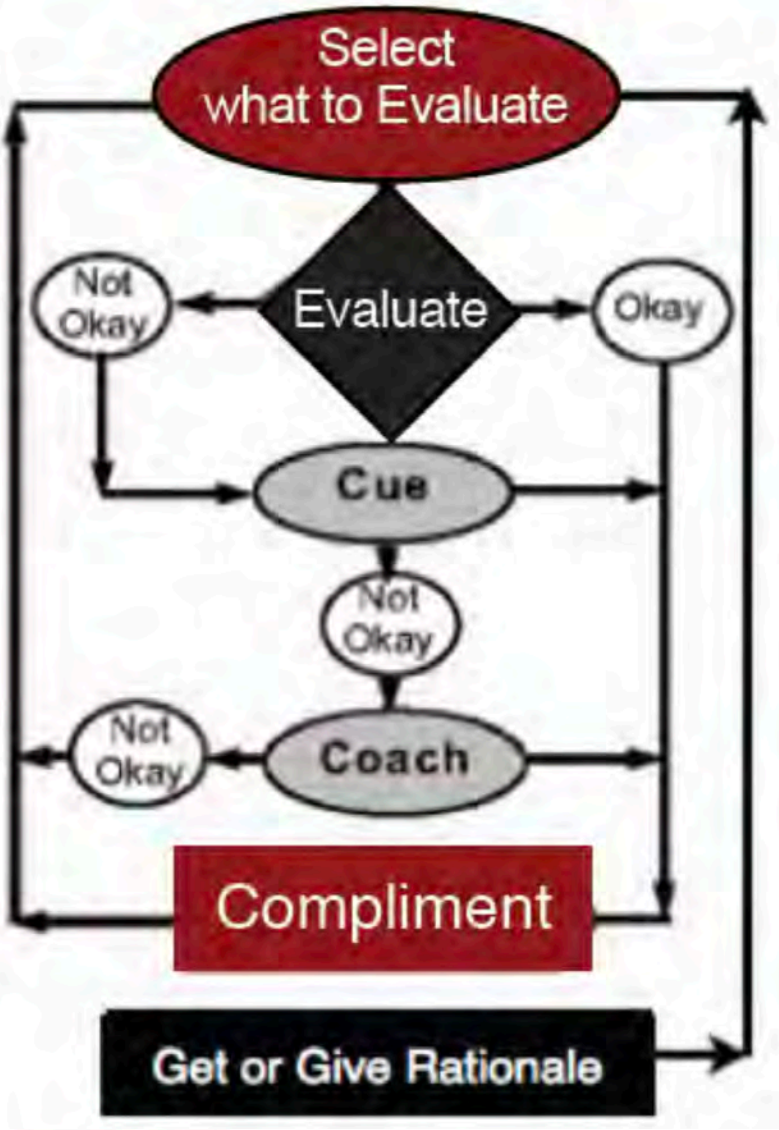
Directions:

Phase 2 in-car practice should take place after the Driving MIND eCoach activities have successfully been completed to qualify for behind-the-wheel training. Phase 2 can take place in conjunction with Phase 1 after the qualifying test on the eCoach is passed.

The use of this App can take place by a Driver Wellness Coach or by a Parent or Mentor. The evaluator will review the teen's previous performance and have the teen redo activities that did not earn a 4 rating.

Evaluations will be made according to use of the ECCCR Coaching Process.

The ECCCR Coaching Process



Evaluate

- Select the most important behaviors to evaluate for the situation.

Compliment

- Give praise for a single behavior when it is performed correctly.

Cue

- Give the trainee a short and timely reminder of what behavior to perform.

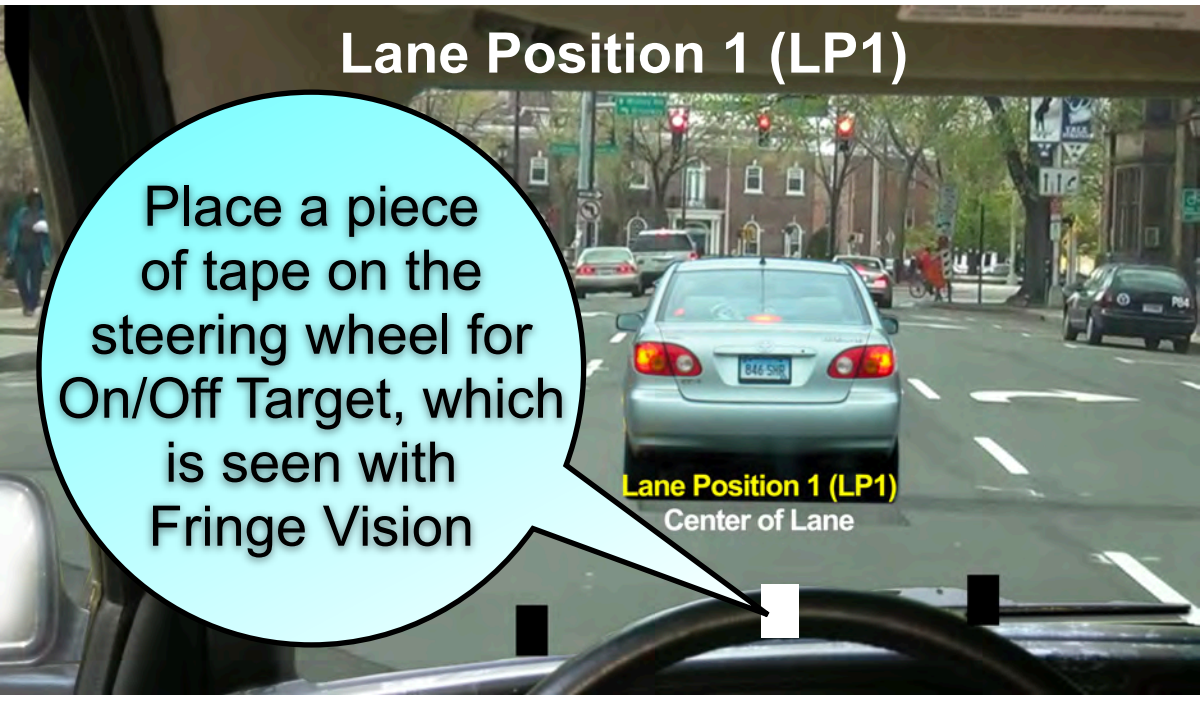
Coach

- Identify single behaviors that the trainee is in need of coaching to achieve success.

Rationale

- Ask the trainee to explain why an action should be developed into habit.

Mark the Reference Points for Fringe Vision



1 **Coach:** Perform in a driveway or parking lot. Ask teen to demonstrate each section.

SAY: "Show me how to Approach the car." Observe the teen's performance.

Then Say: **"What do you want to do before opening the door?** Give feedback.

1: Getting Ready To Drive

While Approaching The Car

4	3
2	1

1. Check path the tires will travel
2. Look Under the Car
3. Look At and Around the Car

Before Opening The Door

4	3
2	1

1. Look Inside the Car
2. Control the Door Swing

After Entering The Car

4	3
2	1

1. Have Fob or Key - Lock Doors
2. Head Restraint at Ear Level
3. Adjust Seat - Butt-In Seating
4. Check and Adjust All Mirrors
5. Safety Belts On All

Starting The Engine

4	3
2	1

1. Parking Brake On
2. Foot on Brake - Shift in Park
3. Press Start — or Twist Key
4. All windows closed
5. Headlights On - day and night

Training Dates

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2

Teens' 1st In-car BTW lesson takes place in a driveway or parking lot.

A. Lay a rope to the front of #5 as a curb line.
B. Select a target to the front and to the rear.

Coach: Ask teen to perform each step on Guides 3 and 4 and LP 2 and LP 3 on Guide 5.

1. Inch the SUV from #1 to #3. Creep the SUV from #3 to the "curb line at **#5.**

5. Make a "safety stop." Note your reference point. Secure SUV. Get out of the SUV to check.

5. Creep back to position **#1** using mirrors and back-up camera if one Is available.

2. Move the vehicle off target.

3. Move into LP2.

4. Move into LP3.

5. Use a line to represent the curb line. Make a "safety stop." Get out of SUV to check.

1-5. Repeat until actions are smooth and consistent.

See Guides 3, 4, and 5 for details.

3 **Coach:** Ask the teen to perform each step. **Say:** **"Place your right foot on the brake."** Then, ask teen to perform the other 3 steps. When done correctly, give the teen a "2" rating because the teen was coached.

3: Moving and Stopping Smoothly

Placing The Car In Motion

4	3
2	1

1. Right Foot On Brake
2. Shift To Drive
3. Release Parking Brake
4. Check Driving Path

Inching & Creeping The Car

4	3
2	1

1. Keep Foot On Brake
2. Release Partial Brake
3. Inching with Brake Control
4. Creeping at Idle speed

Acceleration Control

4	3
2	1

1. Idle Speed Movement
2. Press Gas Smoothly
3. Keep Steady Speed
4. Increase Speed
5. Decelerate Gradually

Braking Control

4	3
2	1

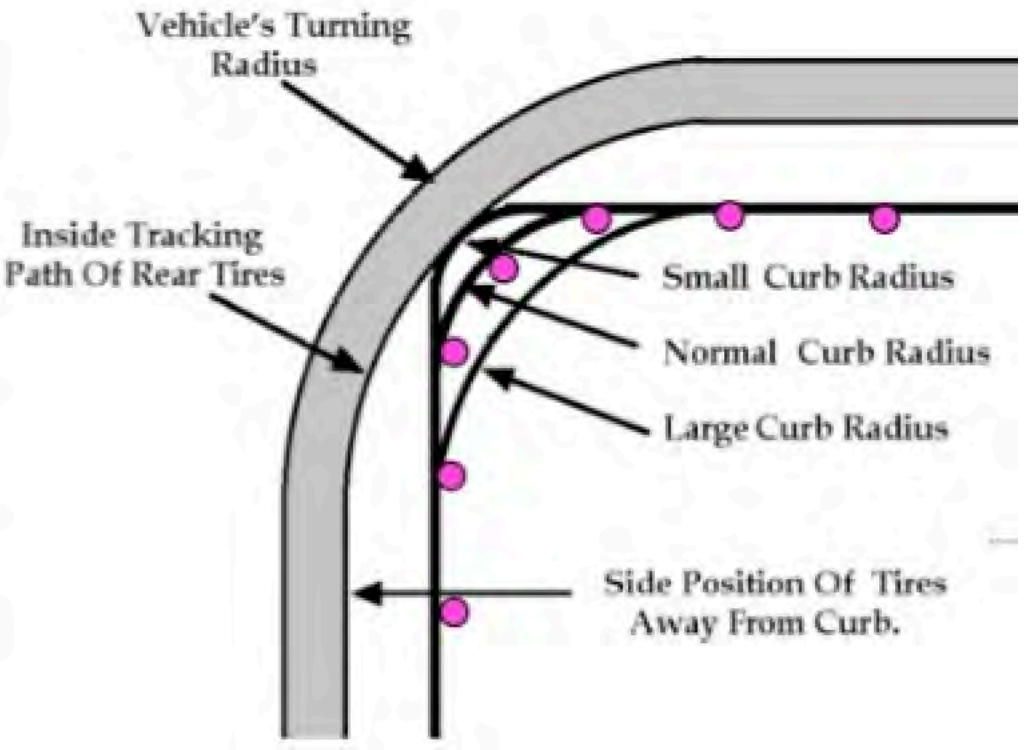
1. Feel Braking Point
2. Constant Pressure
3. Normal Smooth Stop
4. Hard Smooth Stop

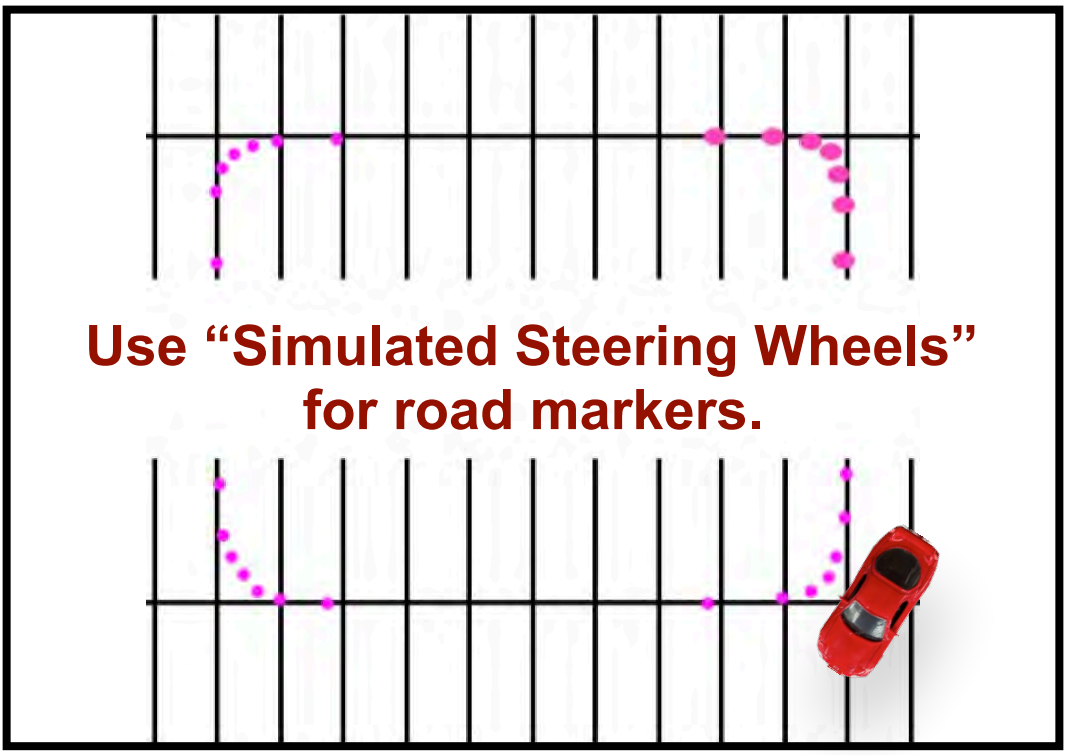
Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

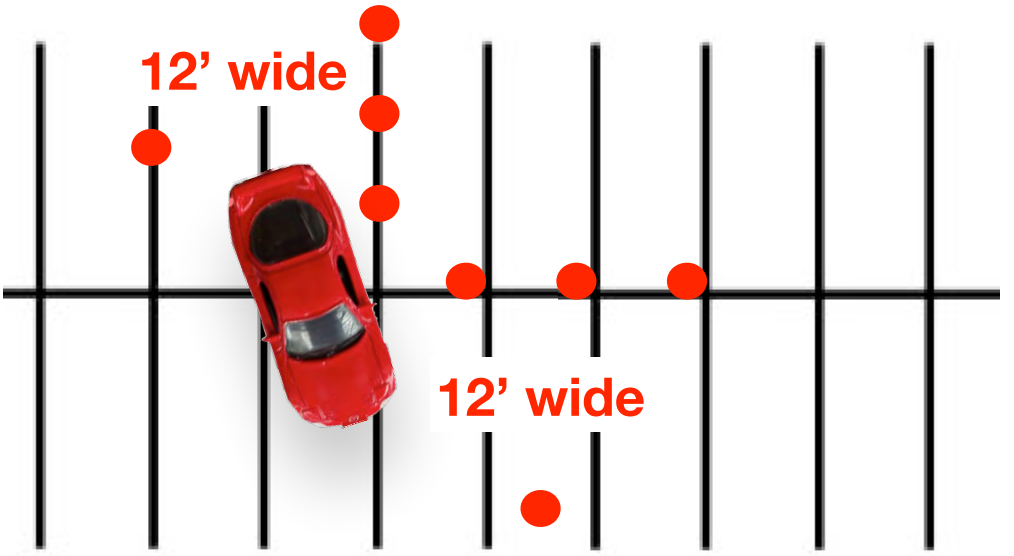
Sample Set-up for Turns





Use "Simulated Steering Wheels" for road markers.

You can also use this set-up



4

Coach: Select four Targets for the teen to make four Left Turns in a parking lot. Place emphasis on teens' use of steps 5, 6, and 7. Repeat ten left turns, then select four targets for making right turns and provide 10 reps. Then, after ten reps have the teen perform another left and right turn that you will rate according to the rating scale.

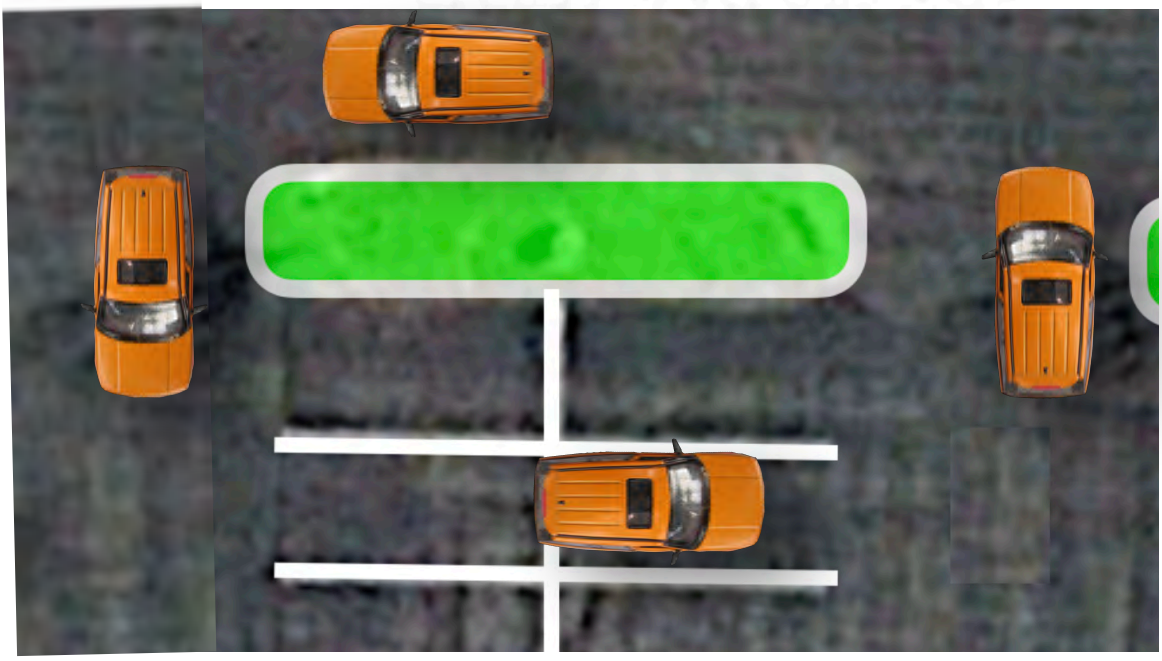
On Target - Off Target

4	3
2	1

1. Selection of Target
2. Use of Central Vision
3. Use of Fringe Vision
4. Aiming for Targets
5. Looking Into Turns

4	3
2	1

6. Use of Steering Wheel
7. Accelerate at Transition Peg
8. Gas and Brake Pedals
9. Centers Wheel in Lane



Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

5

Reference Point Discoveries

4	3
2	1

1. Line-Of-Vision Blind Spot
2. Right Side Limitation
3. Left Side Limitation
4. Front Even With Curb line
5. Rear Even With Line

4	3
2	1

6. Lane Position #2 (LP2)
7. Lane Position #3 (LP3)
8. Lane Position #1 (LP1)

Right Turn References

4	3
2	1

1. Side Position
2. Forward Position

Left Turn References

4	3
2	1

1. Side Position
2. Forward Position

Right side and Left side limitation

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

Coaching On Target

Coach: Ask the teen to perform one step at a time. When correct, give feedback. When wrong, coach for the correct response.

Use of Vision

Does the Driver:

1. Check the left, front, right zones before moving?
2. Turn head on target before turning the wheel?
3. Positions Car on Target?
4. Uses Central vision to see target, Fringe vision to see cones?

Use of Steering

Does the Driver:

1. Use a balanced hand position on wheel?
2. Uses Hand-over-Hand, or Pull-Push method effectively?
3. Keeps knuckles and thumbs on outside?

Accelerate/Brake

Does the Driver:

Use Acceleration Techniques to:

1. See open space before accelerating?
2. Sets car in motion smoothly?

Use Braking Techniques to:

3. Apply brake with right foot?
4. Make smooth stops?
5. Stop at cone to represent seeing the tires?

Turns from a Stop

Does the Driver:

1. Use correct side position?
2. Use correct forward position?
3. Make smooth stop?
4. Search intersection left, front, right zones?
5. Turn head onto target?
6. Check outside mirror?
7. Accelerate at Transition Peg?
8. Uses effective steering?
9. Detects, corrects skid?

Moving Turns

Does the Driver:

1. Reduce speed before turning steering wheel?
2. Turn head before turning the steering wheel?
3. Hold the brake until at the Transition Peg?
4. Accelerate effectively coming out of the corner?

Lane Positions

Does the Driver:

1. Position car in LP2 and LP3 accurately

Transition Pegs Introduction

Does the Driver: **Use of Tpeg**

1. Demonstrate correct transition peg when asked to stop at it?
2. Turn head towards target to see transition peg?
3. Increases acceleration at transition peg?
4. Hold partial braking until at transition peg?

Entering & Crossing Traffic

Select Gap From Curbside

4	3
2	1

1. Evaluate Path to Enter
2. Mirror - Blind Spot Check
3. Locate Gap or Hole to Enter
4. Use of Signals

While Entering Traffic Flow

4	3
2	1

1. Avoid Hesitation
2. Look to Target Area
3. Side Position Reference Point
4. Steering Technique
5. Speed Control

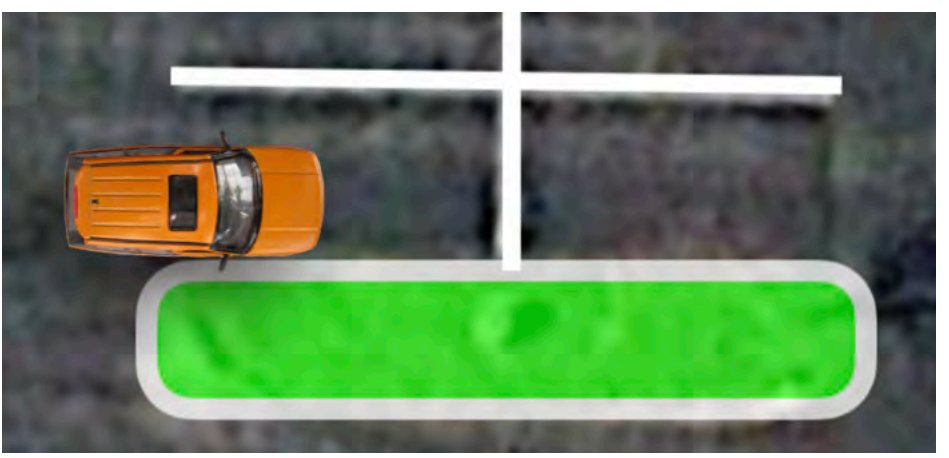
After Entering Traffic Flow

4	3
2	1

1. Cancel Signal
2. Accurate Tracking Path
3. Re-evaluate Rear Zone
4. Look for New LOS-POTs

Note:

Use lines in a parking lot as a simulated curb.



Training Dates

Rating:

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Precision Turns

Before Turning

4	3
2	1

1. Use of Signals
2. Mirror - Blind Spot Check
3. Side Position Reference Point
4. Speed Control - Brake
5. Smooth Legal Stop

4	3
2	1

6. Forward Position Reference Pt
7. Select Target
8. Search L, F, R, for Gap or Hole
9. Get Commitment ⊞

During Turn

4	3
2	1

1. Avoid Hesitation
2. Look Into Turns, Target
3. Speed and Steering Control
4. Use of Transition Peg
5. Accurate Tracking Path

After Turn

4	3
2	1

1. Precision Turn Results
2. Re-evaluate Rear Zone
3. Look For LOS-POTs

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

8

Reading Instruments & Gauges

Demonstrates understanding and correct use of gauges

Before Exiting the Vehicle

4	3
2	1

1. How Is The Location?
2-3. Parked Okay/Tires Straight?
4. Keep Foot On Brake
5-6. Parking Brake/Shift To Park
7. Foot Off Brake

4	3
2	1

8-9. Accessories Off/Belts Off
10-11. Windows Closed/Key Out
12. Left-Rear Zone Check
13-14. Alarm Set/Open Door
15. Doors Locked

Before Passenger Exits

- Put shift in Park Position

Key Behavioral Patterns

4	3
2	1

- **Use of Reference Points**
- **Side Position RP for Turns**
- **Forward Position RP for Turns**

4	3
2	1

- **Target Usage for Turns**
- **Search Intersection, L, F, R**
- **Look into turn before steering**
- **Steering and Recovery**
- **Turns Transition Pegs**

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

Backing Introduction

4	3
2	1

1. Foot On Brake, Shift to "R"
2. Target Usage
3. Turn Wheel, Top Down
4. Look Over Right Shoulder
5. Use All Mirrors
6. Check Front Swing

Reference Point Usage

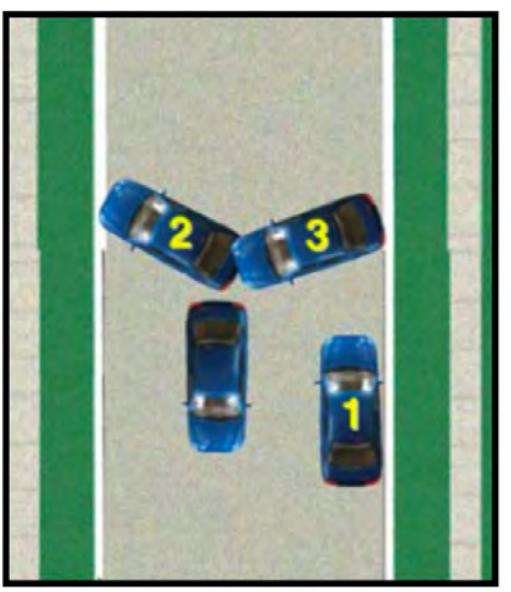
1. Back To A Line
2. Discover Pivot Point

11C: Three-Point Turnabout

4	3
2	1

1. Performed In Parking Lot
2. Used Non-Crowned Road
3. Used On Crowned Road

1. Start 3-6" From Curb
2. Check for clear path
3. Check Driver side Mirror
4. Signal, Turn wheel fast
5. Stop before curb, Shift
6. Check for traffic
7. Turn wheel fast
8. Use mirrors, camera
9. Stop at curb, Shift
10. Check for open POT
11. Turn car on target



Training Dates

Rating:

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10

Turnabout Driveway/Intersection

4	3
2	1

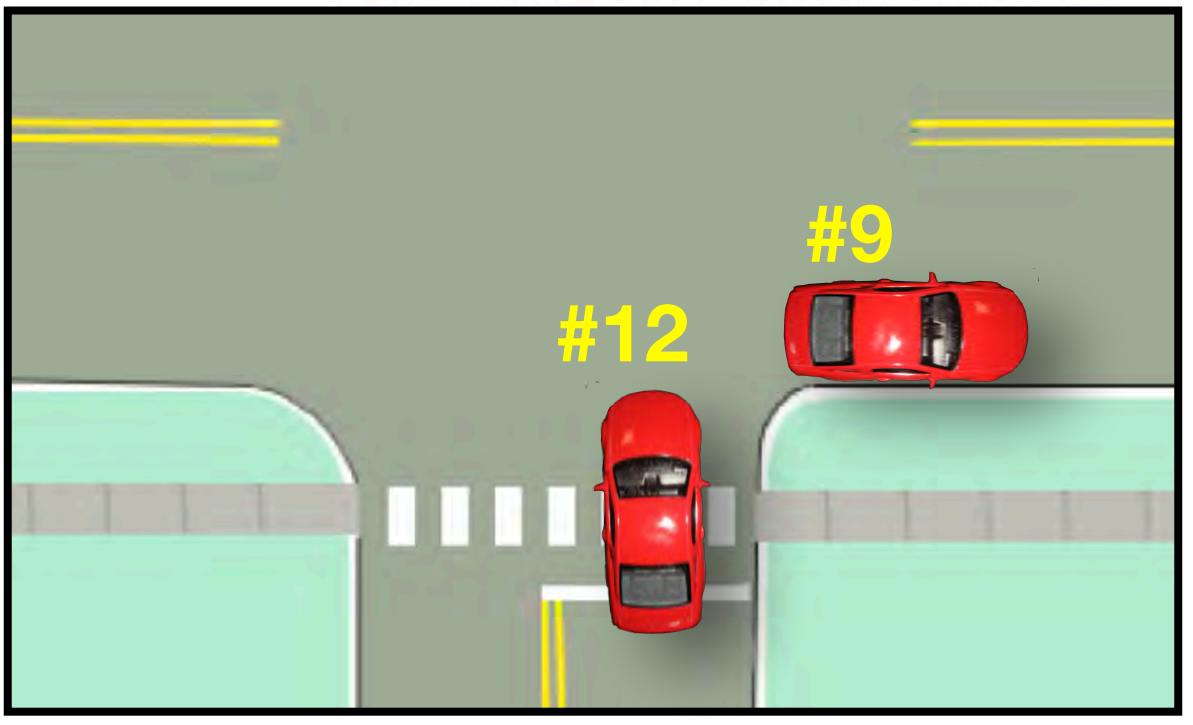
1. Consider Your Choices
2. Evaluate Risk, See LOS-POTs
3. Select A Location
4. Check Rear, Tap Brake Lights
5. At Intersection, Right Signal
6. Clear Intersection
7. Stop 12" away from Curb

---

8. Shift To "R", Check Inters
9. Back to Pivot Point

4	3
2	1

10. Turn Wheel From Top Down
11. Check Front Swing Of Car
12. Back To Safety Stop Position
13. Shift To" D", Left Signal On
14. When Safe, Make Left Turn



Training Dates

Rating:

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11

Forward & Angle Parking

1. Before Parking

- Check Rear Zone
- Check Parking Space

4	3
2	1

2. Side Position
3. Forward Position
4. Creep - Turn Wheel Fast
5. Line Up With Target
6. Straighten Car and Tires
7. Stop At Front Reference

2 . To Exit Parking Space

4	3
2	1

- Back Slowly. • Check Traffic
- Check All Corners • Clear Fender
- Turn Wheel. • Straighten Car
- Straighten Tires • Shift to Drive

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

12 Approach Intersection

1. See Inter. In Target Area
2. Check The Rear Zone
3. Select Best Lane/Position
4. Search Left, Front, Right
5. Speed Control For LOS-POTs
6. Point-Of-No-Return

4	3
2	1

7. Stopping: No Car In Front

4	3
2	1

- Staggered Stop
- Legal Stop
- Safety Stop

8. Stopping: Car In Front

4	3
2	1

- See Rear Tires
- Delay Moving 2 Seconds

9. Stopped In Traffic

4	3
2	1

- Unstable Rear Zone
- Identify "Sand Barrels"
- Communicate
- Know Escape Path

Note: Place a carton box, or a cone on the pavement to represent the tires of a vehicle stopped.

Training Dates

Rating:

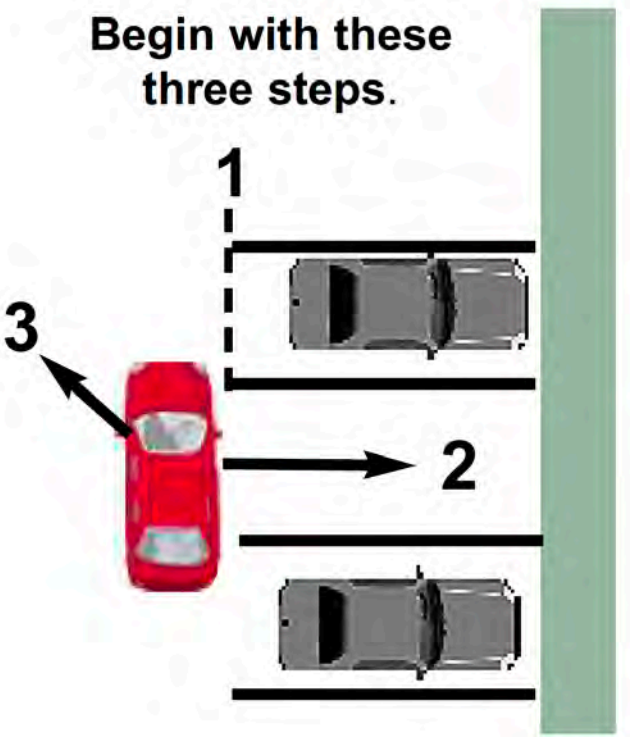
4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

13

Perpendicular Parking - Backing Into Space

1. Side Position
2. Forward Position
3. Select 45-Degree Target
4. Creep - Turn Wheel Fast
5. Use The Least Forward
6. Line Up Car With Space
7. Shift To Reverse
8. Back To Rear Pivot Point
9. Inch - Turn Wheel Fast
10. Get Car Straight In Space
11. Inch - Straighten Tires
12. Back To Rear Reference

4	3
2	1



Training Dates

Rating:

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14 Approaching Curves and Hills

4	3
2	1

1. See Curve In Target Area
2. Check Rear Zone
3. Test Tire-Road Grip
4. See A Left or Right Curve
5. See 4 Seconds of Road
6. Get Best Speed Control
7. Look For Cars/Get LP
8. See LOS-POT at Apex
9. Look Into Curve For POT

At which curve are there more single vehicle crashes?

More crashes occur at slight curves because drivers fail to see a need to reduce speed.

For Speed Control in Curve, See 4 Seconds
Keep 4 seconds of road visible. When you have less than 4 seconds of road visible, brake before going into the curve to see more road. When braking, hold partial brake pressure until you're at the transition peg.

Training Dates

Rating:
4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

15

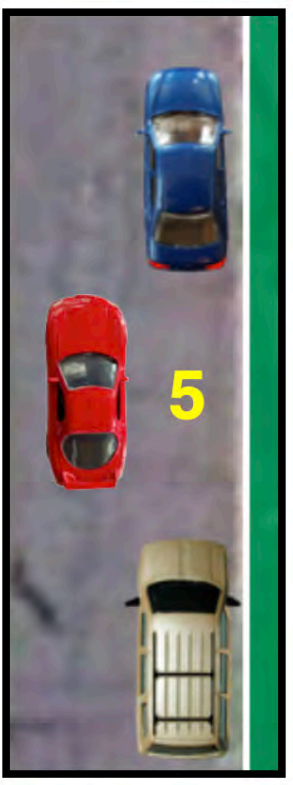
Parallel Parking

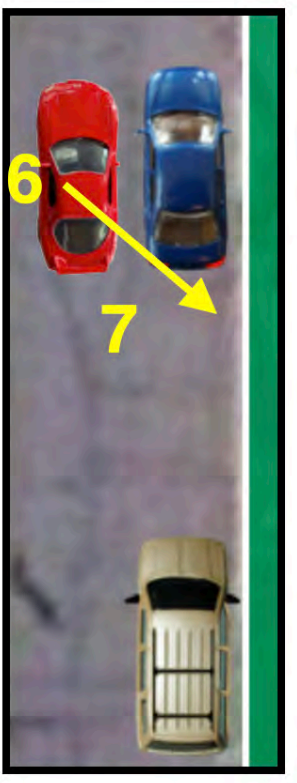
4	3
2	1

1. Rear Zone Control
2. Speed Control
3. Locate Parking Space
4. Side Position - 2 or 3 Feet
5. Stop Even With Space
6. Go Forward

4	3
2	1

7. Back To Rear Pivot Point
8. Check Left-Front Corner
9. Creep and Turn Wheel Fully
10. Move Car To 45° Angle
11. Creep and Time Turning to clear front car
12. Straighten Tires - Center Car





Training Dates

Rating:

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16

Hill Stops and Starts

1. Pull To Side Of Road To Stop

4	3
2	1

- Keep Foot On Brake Pedal
- Apply Parking Brake
- Shift To Neutral
- Release Foot From Brake
- Be Certain Parking Br Holds

2. Starting The Car In Motion

- Put Right Foot On Brake
- Shift To Drive
- Check Mirrors
- Put Left Signal Light On

4	3
2	1

- Move Right Foot To Gas Pedal
- Press Gas Pedal Slightly
- Check outside mirror
- Check Your Forward Path
- Release Parking Brake
- Increase Gas As Needed
- Should Be No Roll Back
- Cancel Signal

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

Responds To Problems

1. Coping With Car Problems

- **Brake Failure**

4	3
2	1

- Pump Brakes
- Downshift
- Hold Parking Brake Release
- Stab Parking Brake
- Take Escape Path

- **Engine Stalls**

4	3
2	1

- Steer Firmly
- Open Palm - Neutral

- **Restart Engine**
  - Shift To Drive
  - Take Escape Path

2. Roadway & Driver Problems

4	3
2	1

- Locate and Park Near.....
- Locate and Stop at .....
- Your Tire Just Blew Out
- Emergency Vehicle from rear
- It's Beginning To Rain
- Missed Your Turn

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

Limited Access Highways

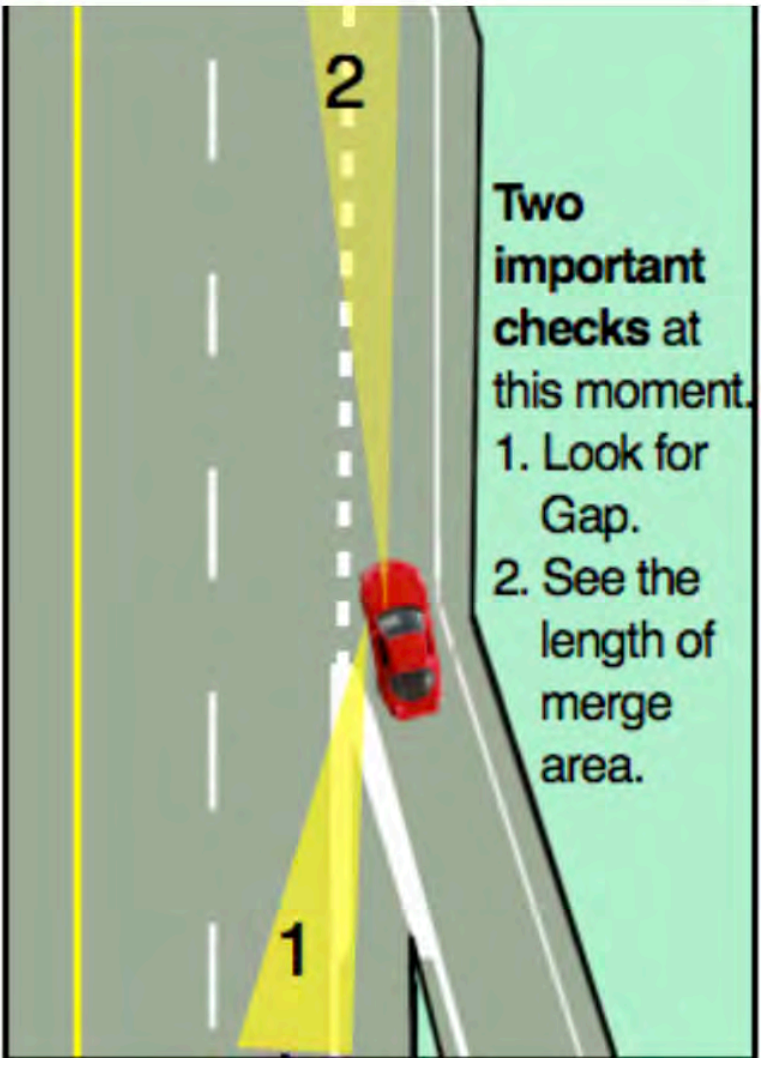
1. Getting On The Highway

4	3
2	1

1. Start in LP1
2. Check outside mirror
3. Check length of entrance ramp
4. Signal light on
5. Check blind area - move head forward and away from mirror.

4	3
2	1

7. When clear - accelerate to LP2
8. Check outside mirror
9. Move to LP1
10. Turn signal light off



Training Dates

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Phase 3

On Street Coaching

In-Car Coaching Guides The Driving MIND

The teen must earn a minimum of 200 points from Phases 1 and 2 before qualifying for Phase 3.

Directions:

Driver Wellness Coach: It is most efficient to develop a route plan with identified locations for where each activity will be evaluated.

Parents and Mentors: Select an activity and look for a situation to make evaluations on some or all of the actions. Then, find another situation to evaluate. To select an activity, look for those that have a 1 or 2 rating, or no rating, that are in need of being evaluated.

1

Approach Intersection

1. See Inter. In Target Area
2. Check The Rear Zone
3. Select Best Lane/Position
4. Search Left, Front, Right
5. Speed Control For LOS-POTs
6. Point-Of-No-Return

4	3
2	1

7. Stopping: No Car In Front

- Staggered Stop
- Legal Stop
- Safety Stop

4	3
2	1

8. Stopping: Car In Front

- See Rear Tires
- Let car ahead get open POT

4	3
2	1

9. Stopped In Traffic

- Unstable Rear Zone
- Identify "Sand Barrels"
- Communicate
- Know Escape Path

4	3
2	1

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

2

Stopping In Traffic

4	3
2	1

1. See Closed POT - 12 Seconds
2. Check Rear Zone
3. Time Arrival Open Zone
4. Communicate to Rear
5. Braking Without Delay

---

6. Control the Rear Zone
7. Gradual Approach to Stop

4	3
2	1

8. Make Smooth Stop
9. Monitor Rear
10. **A Car In Front**
    - Stop To See Tires
    - Let car ahead get open POT

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

3

Traffic Lights: Timing

4	3
2	1

1. See Light In Target Area
2. See Red Light As Closed Zone
3. Check Rear Zone
4. Alert Rear -- Tap Brake Lights
5. Begin Constant Braking

4	3
2	1

6. Time Arrival Into Open Zone
7. At 10 mph, Go or Stop
8. Green Light, Scan Intersection
9. Red Light, Make Smooth Stop

Left Turn At Green Light

- **Waiting For Opening Get 1/4 Into Intersection**

4	3
2	1

1. Check Rear

2. Find Gap

3. See Path

4. See LIght

Know condition of traffic from right.

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

4

Precision Lane Change

4	3
2	1

1. Why Change?
2. Check Other Lanes
3. Mirror Checks
4. Signal For Communication
5. Move To LP 2 or LP 3
6. Check Blind Spot

---

7. Time Arrival Open Side Zones
8. Increase Speed If Needed

4	3
2	1

9. Enter LP 2 or LP 3
10. Release Signal Light Lever
11. Mirror Check
12. Best Lane Position

Key Behavioral Patterns

4	3
2	1

- **See Red Light as Closed Zone**
- **Adjust speed to get Green Lt.**
- **45 degree Intersection Search**
- **Rear, Gap, Path, Light checks**

- **Use Zone Control Principles**

4	3
2	1

- **Evaluate before Lane Change**
- **Use LPs during Lane Change**
- **Time arrival for open side zone**
- **Perpendicular, backs In space**

Training Dates

Rating:

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5 Entering Exiting Roundabouts

4	3
2	1

1. See Roundabout In Target Area
2. Decide which exit to take
3. Yield to left, enter to right
4. Be alert to others entering

---

5. For multiple lanes, enter inside

4	3
2	1

6. To exit, lane change to outside
7. Use signal light
8. Use outside mirror
9. Look into exiting path

Roundabout Lane Usage: When entering, yield to any vehicle in the roundabout. When there is a gap or hole, enter in the outside lane. Know which exit you will be taking. If you are going to take the first exit, stay in the outside lane. If you are not taking the first exit, move to the inside lane. In our photo, if you are going to take the West exit you will stay in the inside lane until you pass the North exit, at which time you will check your passenger side mirror for a clear lane change into the outside lane.

Outside Mirror Adjustment and Why
Adjust the outside mirrors to see a slight amount of the side of the car. This will allow you to see if there is a vehicle to your rear attempting to jump into the gap you want to enter. The effective use of the outside mirror is essential when entering and leaving a roundabout. The high volume of vehicles moving from inside to outside lanes creates constant changes you cannot see in the rearview mirror.

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

23: Perpendicular Parking - Backing Into Space

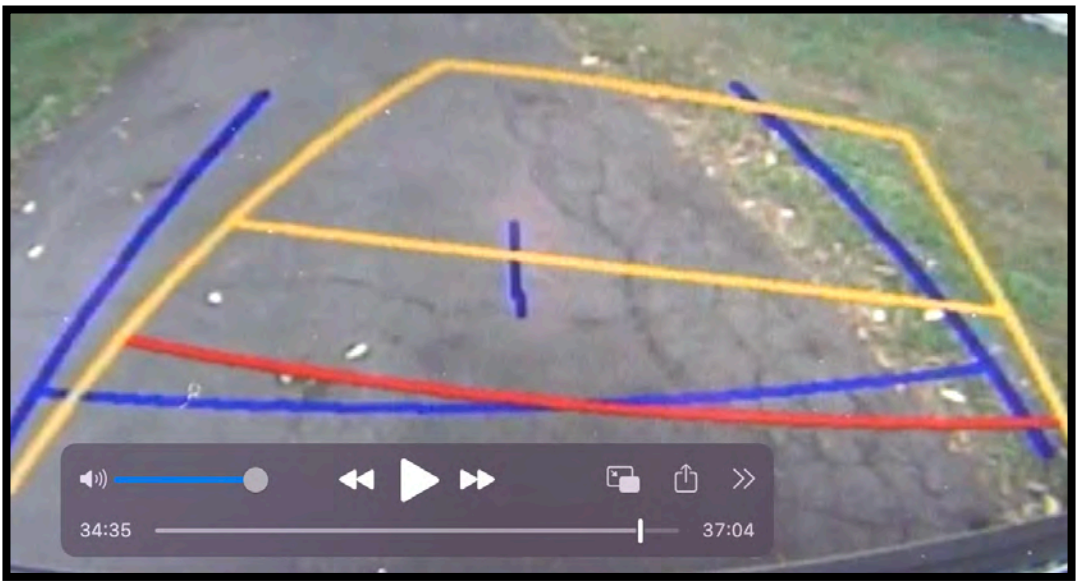
4	3
2	1

1. Side Position
2. Forward Position
3. Select 45-Degree Target
4. Creep - Turn Wheel Fast
5. Use The Least Forward
6. Line Up Car With Space

4	3
2	1

7. Shift • Mirrors • Camera
8. Back To Rear Pivot Point
9. Inch - Turn Wheel Fast
10. Get Car Straight In Space
11. Inch - Straighten Tires
12. Back To Rear Reference

The Blue line shows where the vehicle will travel. **The Yellow line shows** where steering will direct the vehicle.



Training Dates

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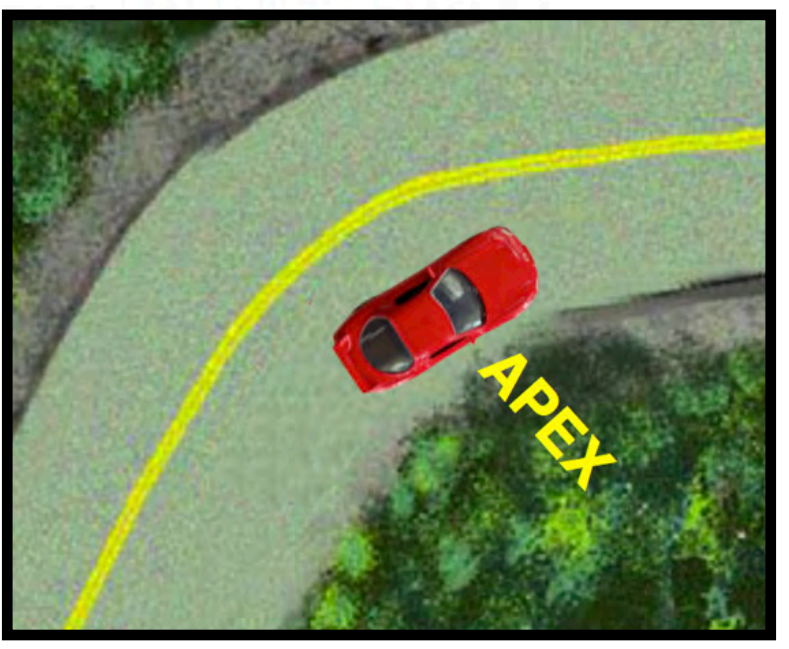
7

Approaching Curves and Hills

4	3
2	1

1. See Curve In Target Area
2. Check Rear Zone
3. Test road for “Slide Space”
4. See A Left or Right Curve
5. See 4 Seconds of Road
6. Get Best Speed Control
7. Look For Cars/Get LP
8. See LOS-POT at Apex
9. Look Into Curve For POT
10. Evaluate New Target Area
11. Evaluate Targeting Path
12. Hill Approach LP 1
13. At Hillcrest, Evaluate POT
14. Hillcrest LP 1

4	3
2	1



Training Dates

Rating:

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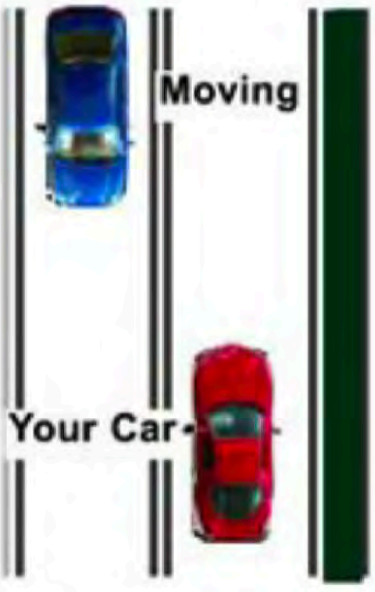
How to Manage Zone Changes

1. Identify Fixed Side Zone Changes

A fixed zone change is one that is not moving and is not likely to move before you reach its location. The parked camper is an example of a fixed side zone change.

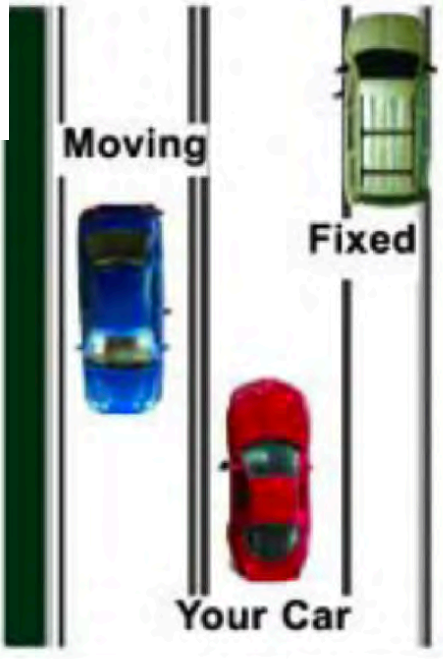
2. Identify Moving Side Zone Changes

An example of a moving side zone change is an oncoming vehicle. By changing your speed, you can alter the location where you pass each other.



3. Time B-Zone (left) with Fixed C-Zone (right)

To time the left zone — which is the moving zone change — you will pass the moving car and the fixed parked car separately.



Timing Side Zones

4	3
2	1

1. Identify Fixed Side Zone Ch
2. Identify Moving Side Zone Ch
3. Time Left Zone With Fixed Rt
4. Time Rt Zone With Fixed Lt

4	3
2	1

5. Improve Lane Position
6. With Closed Left & Right
7. Making Lane Change
8. While Passing, Time Open
9. Comm. For Best Control
10. Get Best Speed Control

Control Critical Second

4	3
2	1

Control Critical Seconds when:

Someone Enters Your P.O.T.

Your Car Gets Off Target

Critical Second Speed Control

- Closed Zones, Reduce Speed
- Closed A Window, Adjust Speed
- Closed B & C Window, Adjust Speed
- LOS-POT Blockage, Reduce Speed

4	3
2	1

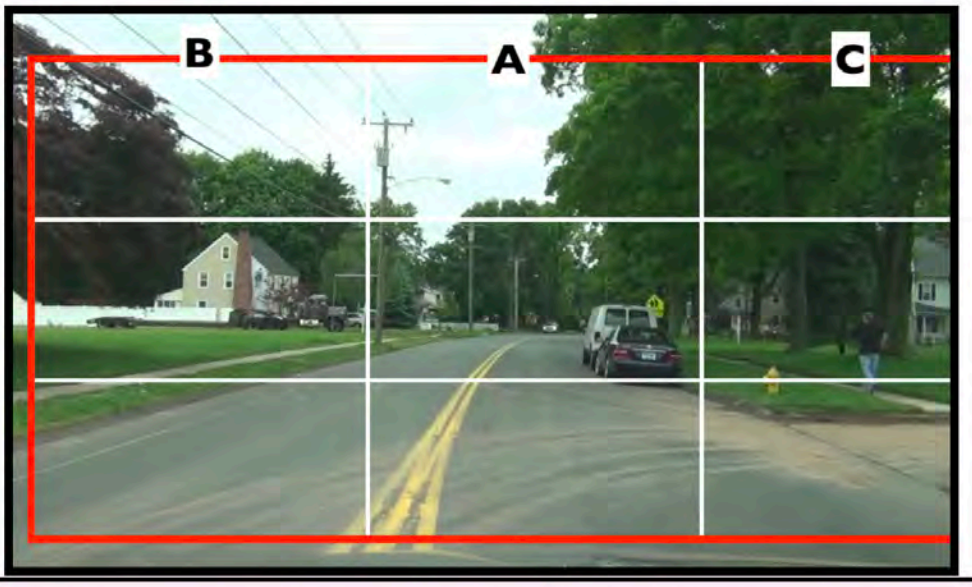
- Danger Square, Adjust Speed
- Entering Curve, Reduce Speed
- Reduced Tire Grip, Reduce Speed
- Reduced Visibility, Adjust Speed
- Work Zones, Reduce Speed

Training Dates

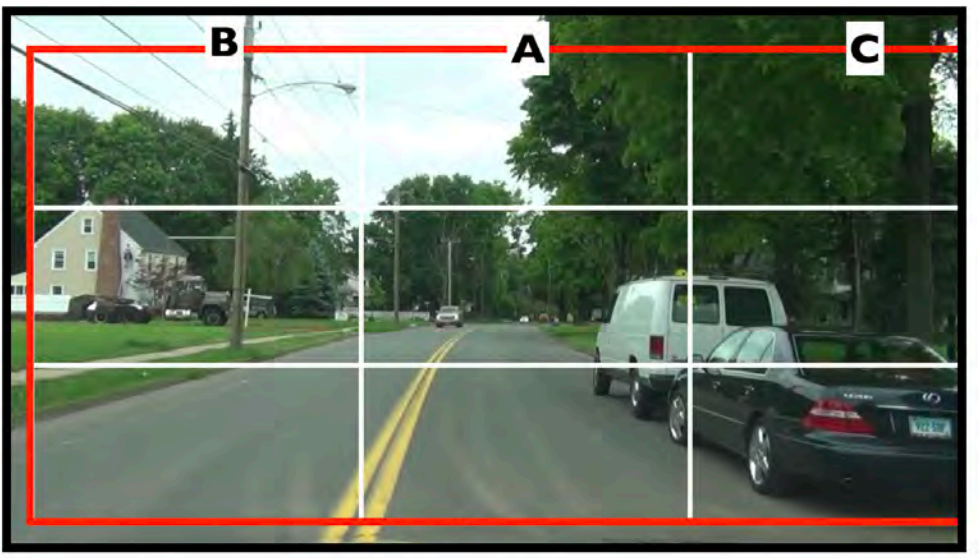
Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

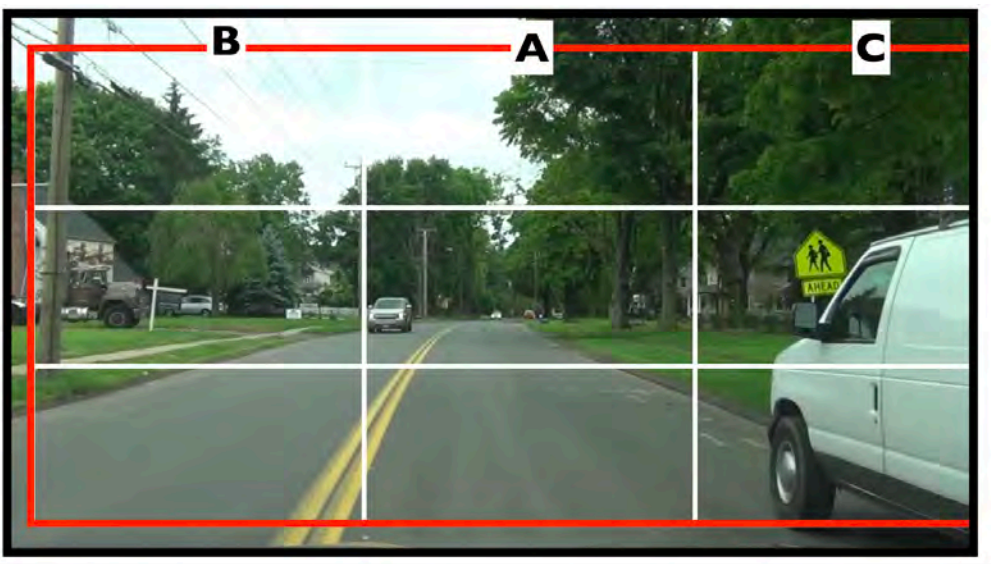
Find Critical Seconds to Manage



You Find in your A window that you will have parked vehicles creating an LOS-POT Blockage in your C window. There is no timing problem with the oncoming car.



This is a Critical Second. Vehicles or people could enter your POT. You manage it by taking LP2 and being alert.



This is another Critical Second. You can do a Ground Viewing Search and a 45-Degree Search for control.

Being Passed

1. Being Passed

4	3
2	1

1. Identify Type Of Tailgater
2. Plan Ahead For Passing
3. Select Passing Location
4. Adjust Lane Position
5. Communicate If Needed
6. Adjust Speed
7. Adjust Following Time

Passing

4	3
2	1

1. Why Pass? - Risk vs. Gain
2. Keep At Least 3 Seconds
3. Select Best Passing Location
4. Mirrors - Head Checks - Signal
5. Check Front and Side
6. Avoid Hesitation

4	3
2	1

7. Accelerate Smoothly
8. Keep Searching
9. See Headlight
10. Return to Lane, Cancel Signal

Practice using the imaginary **"Red Truck."**

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

10

Limited Access Highways

1. Getting On The Highway

4	3
2	1

1. Check The Rear Zone
2. Keep 4 Seconds of Space
3. On Ramp, Slow Speed
4. Search For Gap To Enter

4	3
2	1

5. Blind Area Checks
6. Signal Light On
7. Accelerate Briskly
8. Precision Lane Entry
9. Mirror Checks

2. Getting Off The Highway

4	3
2	1

1. Plan 12 Sec. Plus For Exit
2. Get Rear Zone Status
3. Communicate
4. Change Lanes, If Needed
5. Test Brakes Before Exit
6. Controlled Braking

Use secondary and rural highways for simulated Freeway Entry.

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

Procedures and Behaviors on Limited Access Highway

Target Area Searching - Matrix Use

4	3
2	1

FINDS LOS-POT in Target Area
SOLVES 15 seconds away
CONTROLS 4-sec. danger zone
Controls A, B, C Windows
Controls Critical Seconds

Separation Space from Vehicles

4	3
2	1

becomes Alerted to slow vehicles
adjusts Front Closure rate
keeps four-seconds space
controls the rear zone

Lane and Speed Selection

4	3
2	1

selects best legal lane for travel
uses far-left lane only for passing
uses lane effectively
selects best and legal speed

Approach To Interchanges

4	3
2	1

see open/closed zones
check rear zone
lane position/speed control
keep an open B or C window

Training Dates

Rating:

4 = No Hesitation, 3 = Hesitated, 2 = Coached, 1 = Practice

Driving MIND Evaluations

Professor Mottola's Family Wellness Training

This section are pages from the Mobile App that is used by Driver Wellness Coaches to evaluate a driver's Zone Control habits.

1 Driving MIND™ Evaluations

Being Courteous — A Gift to YOURSELF

Show Photo

ASK: 1. How is looking for opportunity to be courteous a gift to Yourself?

ASK: 2. How is finding a hole in traffic as a pedestrian attempting to cross a road an act of being courteous?

ASK: 3. How is making a 45° search beyond an LOS Blockage before crossing a street an action of courtesy?

Cover Responses: Read aloud the answer after each response is made.

1. By looking to be courteous it gets your mind engaged in seeing details of the traffic scene, which makes it easy to detect a roadway user who may be ready to enter your POT. **2.** It prevents the oncoming driver from having to apply the brake in response to your movement. **3.** When you make the 45° search your mind is engaged. You don't step into other's path.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

2 Driving MIND™ Evaluations

Searching Target Area and Critical Seconds

ASK: 1. When you search to the Target Area, where are you searching, and why are you searching there?

Response:

Looking all the way down the road until you can't see any further is the Target Area. By searching there you are able to detect approaching vehicles and make a choice whether you have time and space to cross the road.

ASK: 2. What is a Critical Second?

Response:

A Critical Second is when you are within one second of other roadway users.

This is Searching to the Target Area!

For Evaluator - After the trainee responds to your questions you can show the image above.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

3 Driving MIND™ Evaluations

LOS-POTs - 90º and 45º Searches

SAY: You're a pedestrian getting ready to cross the street at this intersection.

ASK: 1. What does the Zone Control Language call this truck?

ASK: 2. In addition to making a 90º search for vehicles and bicycles before stepping beyond this truck, where else should you search and what are you searching for?

ASK: 3. Where is a 90º Search? Which search is shown here?

Cover Responses: **Read aloud** the answer after each response is made.

1. This truck is an **LOS-POT Blockage.** **2.** A search to the rear for vehicles making left turns into your path and search ahead for vehicle making a right turn into the street. **3.** A 90º Search is the the target area. A 45º Search is shown here.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

4 Driving MIND™ Evaluations

Walking on a Road — Detecting Movement to LP3

ASK: 1. You're walking on a road. Which side of the road should you be on, and what should you be looking for?

Response:

You should be on the left side of the road facing traffic. You should look for the lane positioning of oncoming vehicles. If you find a driver in LP3 be perpared to find an escape path.

ASK: 2. What position is LP3?

Response:

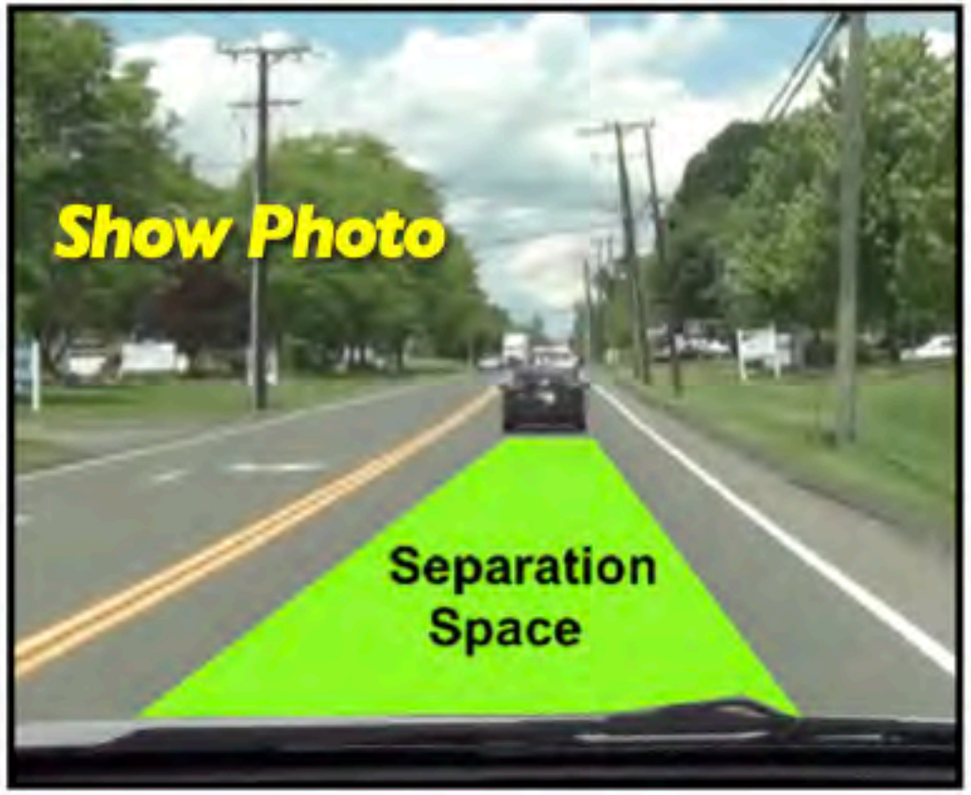
L3 is toward the curb side of the road.

For Evaluator - After the trainee responds to your questions you can show the image above.

SAY: Point to the LOS-POT Blockage the pedestrian should become aware of! **Response:** The LOS-POT is the Bushes ahead before the driveway. ASK: What type of search should be made before crossing the driveway? **Response:** A 45° search.

5 Driving MIND™ Evaluations

Judge Seconds of Approaching Vehicles



SAY: Explain the five steps you were able to use for this Challenge to learn how to judge Separation Space.

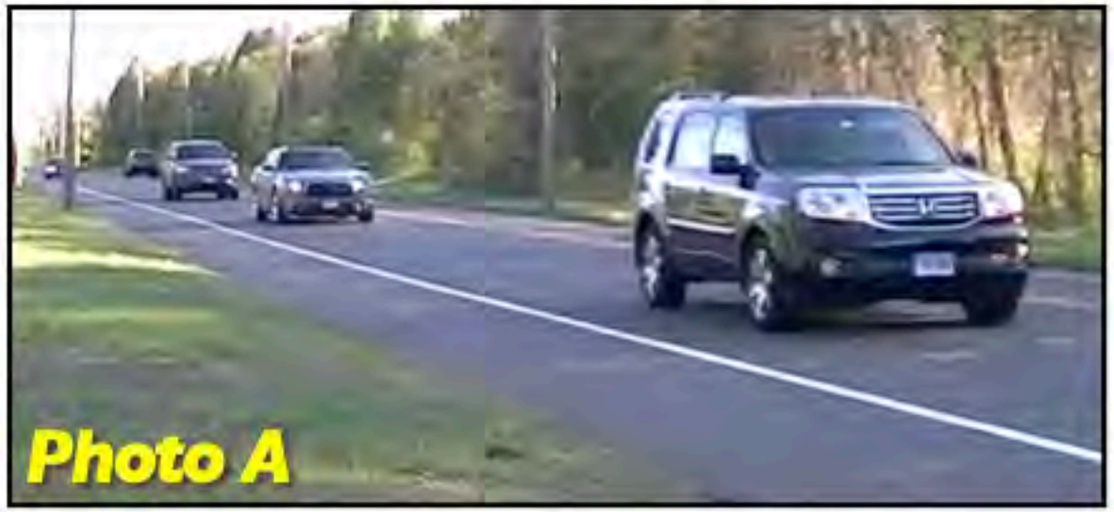
EVALUATOR
Cover this until after the response is made.

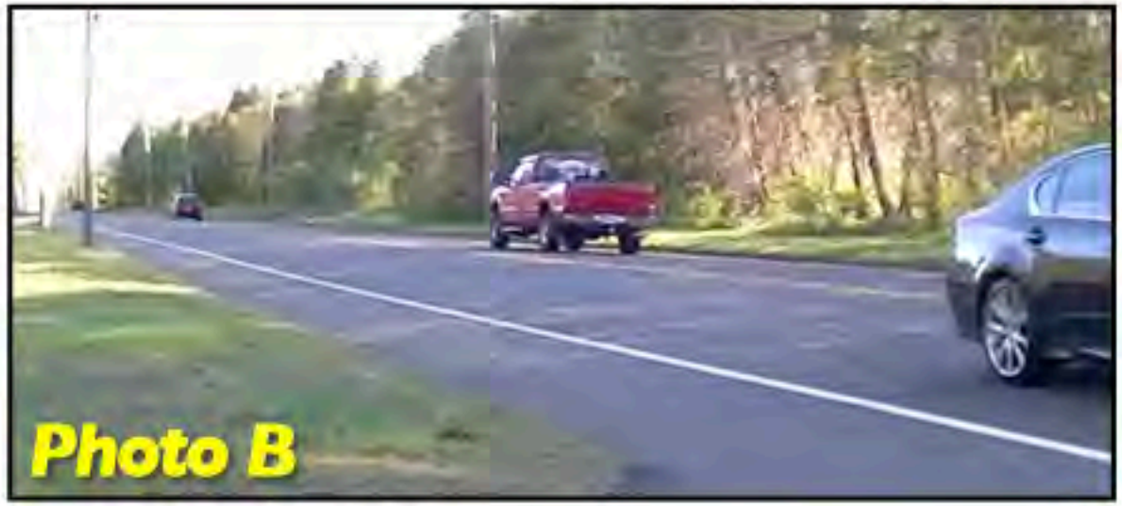
To Measure Space

1. Take a guess.
2. Select a marker.
3. Car ahead passes marker.
4. Begin counting.
5. Stop counting when you reach the marker.

6 Driving MIND™ Evaluations

Locate Gaps, Holes, Clusters of Traffic Flows





ASK: 1. What type of space separation is shown in photos A and B?

ASK: 2. How do you learn to make accurate judgement of the size of separation space?

ASK: 3. Why do you want to time how many seconds it takes you to cross a road?

Cover Responses: Read aloud the answer after each response is made.

1. Photo A shows a **Gap** between the next two vehicles. Photo B show a Hole in the traffic flow.

2 a. First find a marker to use. **b.** Take a guess of the space between two vehicles. c. When the back of the first vehicle passes the marker begin counting by 1000's. d. Stop counting when the the front of the second vehicle reaches the marker.

3. To be aware of the size of the hole needed.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

7 Driving MIND™ Evaluations

Crossing at Mid-Block and Marked Crosswalks

ASK: 1. You have the "Walk" Light as you are preparing to cross the street. Where should you be looking and what are you looking for?

Response:
Look ahead for drivers making a left turn. And look to the rear for drivers making a right turn on red.

ASK: 2. Why may a driver making a left turn not see you in the crosswalk?

Response:
He did not acquire the habit of evaluating the path to be entered before turning the steering wheel.

ASK: 3. What actions are taken before crossing a street at midblock without a marked crosswalk?

Response:
Search to the front to see what you will be crossing into. Make a 90º search to the left and right to the target area for approaching vehicles. Find where an acceptable hole or gap will be to enter.

Approaching Vehicle - Safety Belts

ASK: **1.** What should you check while approaching the vehicle?
2. Explain at least three advantages for using safety belts.
3. What would you do if a passenger doesn't buckle-up?

Response:

1. Check the path the tires will travel over to make certain it is clear.

2. Advantages for Using Safety Belts

- Keeps you in control of the vehicle.
- Satisfaction in knowing you care about protecting your occupants.
- If a crash does occur, survival rate for all more than doubles.
- Belts on reduces the impact of the brain crashing into the skull.
- With belts on you reduce the crash forces that take place.
- If a crash does occur, occupants are not thrown into the crash.

3. Ask the passenger to buckle the belt before starting the engine.

9 Driving MIND™ Evaluations

Detect/Correct Drowsiness

SAY: You're traveling on a secondary State highway. You are feeling tired.

ASK: 1. What are some of the signs to tell you are becoming a drowsy driver?

ASK: 2. What actions should you take after discovering your drowsy condition?

Response 1

How To Tell If You Are Sleepy

- Your eyes close by themselves.
- You have trouble keeping your head up.
- You can't stop yawning.
- You drift between lanes.
- You keep jerking the car back into the lane.
- You drift off the road.
- There is resistance to moving your eyes for mirror checks.

Response 2

- Search to Target Area, then evaluate the 15 and 4-second ranges.
- Consciously search intersections deep to the left, front, and right.
- Check your rear zone more frequently.

When your eyes resist movement there is only one choice...

- Stop in a safe area, lock the doors and relax for 15 minutes.

10 Driving MIND™ Evaluations

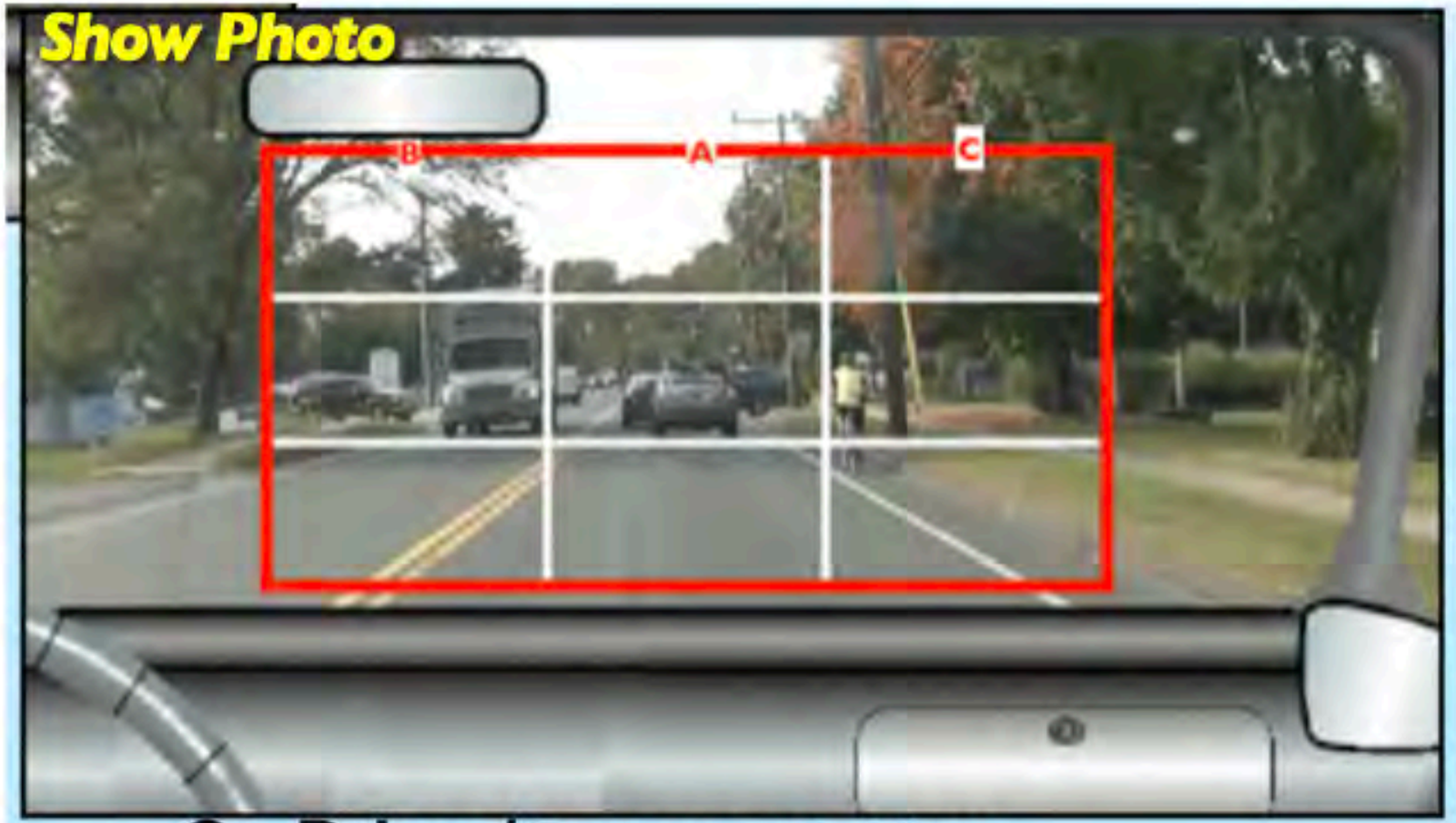
SAM - Evaluate A, B, C Zones

SAY: You're the Co-Driver

SAY: **1.** Name each of the three Zones and their conditions. State if they are **stable or unstable**.

ASK: **2.** What actions would you take if your were the driver?

ASK: **3.** What should your fringe or peripheral vision monitor?



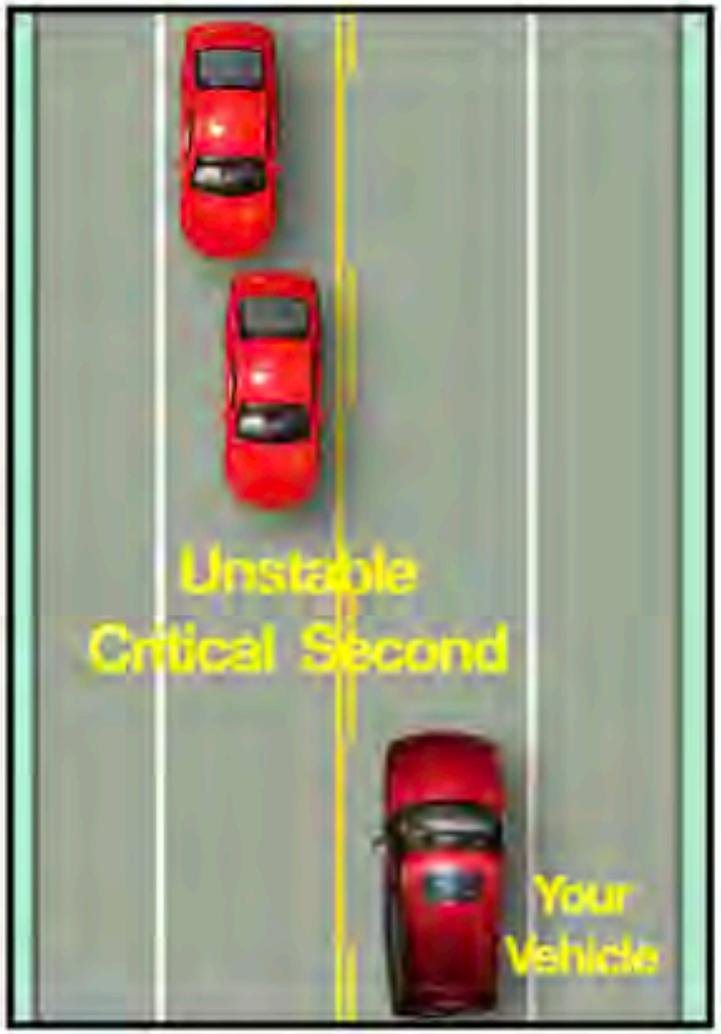
Co-Driver/ Passenger's View

Cover Responses: (Cover the responses while the photo is being viewed)

Read aloud the answer after each response is made. **1.** The **A-Future Zone** is closed by the vehicle braking ahead. The **C-Present Zone** is Closed and Unstable by the Bicyclist. The **B-Present Zone** is Closed and Stable by the oncoming truck. **2.** A braking action is required. **3.** Fringe vision should monitor the bicyclist to detect if there is any movement out of the lane.

11 Driving MIND™ Evaluations

Find Critical Seconds - Stable and Unstable



ASK: 1. What is the difference between a "Critical Second" and an "Unstable Critical Second?"

Response:

An "unstable critical second" is a critical second that has some change taking place.

ASK: 2. Tell me three examples of Unstable Critical Seconds that you have found as a pedestrian, or as a passenger.

Response:

The trainee should be able to provide three examples such as, a driver moving into LP2, a pedestrian walking toward the street, a delivery truck with its flashers on, a driver inside a parked car with the tires turned street-side.

For Evaluator - After the trainee responds to your questions you can show the image above.

ASK: Why is this image showing as an example of a Unstable Critical Second? **Response:** It shows a vehicle moving from LP3 to LP2, which makes that vehicle no longer in a stable condition.

12 Driving MIND™ Evaluations

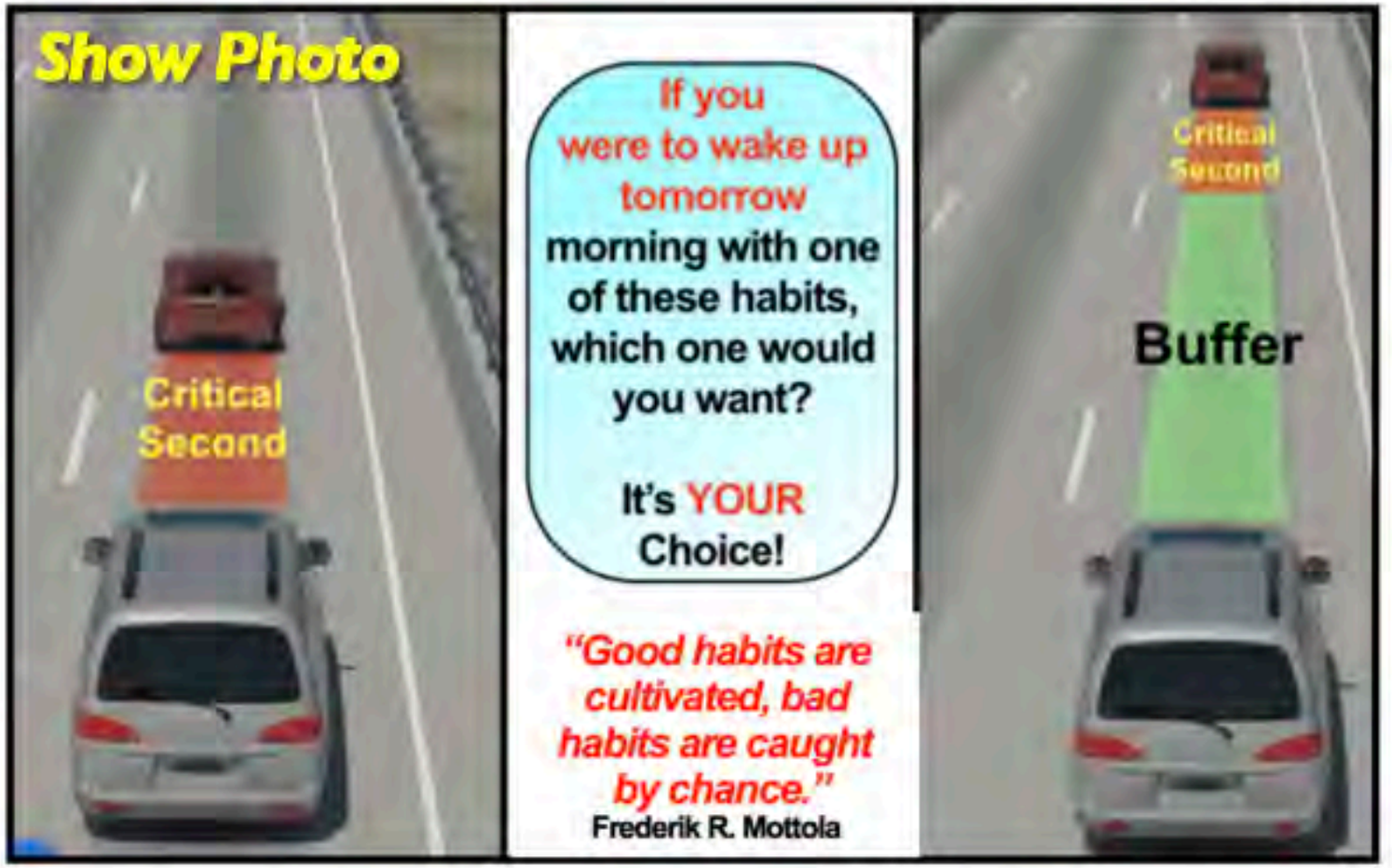
Evaluate Separation Space in Seconds

ASK: 1. What do you need to do in order to acquire the 4-Second Separation HABIT?

ASK: 2. What's the best way to acquire the ability to instantly judge the separation space?

ASK: 3. Why is learning how to control the Rear Zone of importance to controlling space?

Cover Responses: Read aloud the answer after each response is made.



Habit 9: 4-Seconds Separation to Control YOUR Buffer

1. You need to have the willingness to practice until the habit forms. **2.** When you see the vehicle ahead you need to first take a guess for how many seconds of space you have, then count it off until the marker is reached. **3.** You will always have drivers to the rear wanting to use up your separation space. Knowing the type of tailgater gives you knowledge to be in control.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

13 Driving MIND™ Evaluations

Go or Slow Speed Control

SAY: **You're traveling at 30 mph.**

ASK: **1.** Which speed control option should you take at this moment?

2. Is the vehicle ahead a stable or unstable critical second? Why?

3. What LP is the car ahead in?

4. Why do you think it is in that LP?

Cover Responses: (Cover the responses when the photo is being viewed) **Read aloud** the answer after each response is made. **1.** Cover the brake or Apply the brake is needed. **2.** This is an unstable critical second because the vehicle is braking. **3.** Car is in LP3. **4.** The driver intends to make a right turn.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

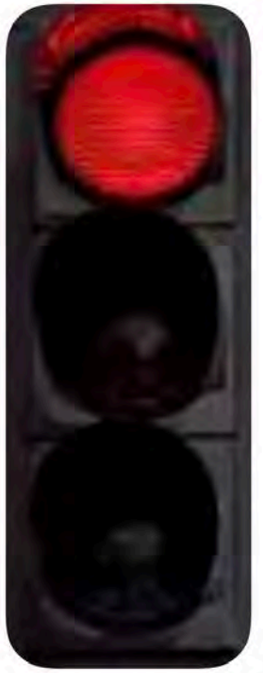
4 3 2 1

Co-Drivers: "Coach" when Drivers Made Errors

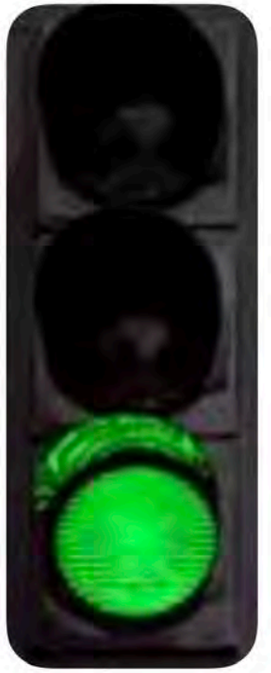
ASK: 1. You're a co-driver practicing a specific zone control strategy, for example "stop to see tires." Your driver stops very close to the car ahead. What should you say or do?

Response: **First, you should never say the driver did something wrong.** You can say, I'm practicing viewing a stopped position where we can see the tires of the car ahead touching the road. Next stop you make I'll remind you to stop in that position so I can see the tires.

ASK: 2. What other ways can you help your driver overcome a bad habit?



When light is Red, use speed control to arrive into a Green Light with no stopped traffic. Know the Rear Zone Condition.



When light is Green, approach expecting the light to change. At the **2-Second PONR make 45° searches** and be prepared to stop. Be able to Control Rear Zone.

Response: After you detected an error, look for the next similar situation. For example, the driver approaches a red light too fast, you can look for the next approach to a red light and say, "I learned to evaluate every red light approach to see what speed to use to arrive at a green light with no stopped vehicles."

When Your Driver is Distracted or Impaired

ASK: 1. You're a passenger in a car driven by one of your friends. A text message comes in and she picks up the phone to look at it. What should you do?

Response:
First, look ahead to evaluate the traffic situation to be prepared to warn the driver of a situation that needs attending (red light, pedestrian crossing, stopped vehicle, etc). Then, tell the driver about putting the phone in the backseat and other strategies you learned.

ASK: 2. Your friend's mother comes to give you a ride home. You're about to get into the car and notice the mother appears to be impaired . What should you do?

Response: First choice if possible is don't get in the car. Make other arrangements to get home. Tell your parents about the situation. **Second choice** if you did get into the car. Don't distract the mother and do the best of your searching to the target area for how speed and positioning is being used. When you see a problem ahead, alert the mother to it. When you get home tell your parents about the situation. Talk to your friend about it.

16 Driving MIND™ Evaluations

SAY: 1. Enter the traffic flow when you are able to. Tell me each action you are taking. **Observe** that the trainee locates the best hole or gap to enter, and enters in LP3 to provide an escape path for undetected speeding drivers.

Entering Traffic Flows

Select Gap From Curbside

1. Evaluate Path to Enter
2. Mirror - Blind Spot Check
3. Locate Gap or Hole to Enter
4. Use of Signals

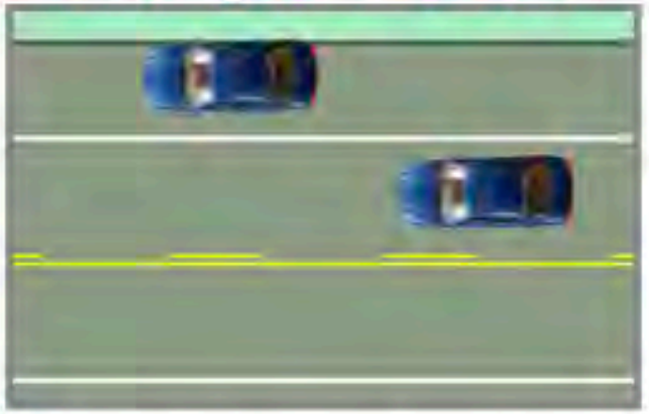
While Entering Traffic Flow

1. Avoid Hesitation
2. Look to Target Area
3. Side Position Reference Point
4. Steering Technique
5. Speed Control

After Entering Traffic Flow

1. Cancel Signal
2. Accurate Tracking Path
3. Re-evaluate Rear Zone
4. Look for New LOS-POTs

Leaving Traffic Flows



SAY: 2. Find a safe location to pullover and stop.
Observe that the rear zone is evaluated and controlled. And, that a good location was selected, and that the car was secured.

For Evaluator - Each time the trainee is entering or leaving a traffic flow make an evaluation of these key behaviors. Give a rating.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

17 Driving MIND™ Evaluations

Using SAM to Avoid Head-on Crashes

AWARE

Find "Slow" or "Go" Conditions and LP's of Vehicles

Four things to Search the A Zone for.

1. Look for **Slow** conditions.
2. Look for **Go** conditions.
3. Look for the **LP** of vehicles. ahead as well as oncoming.

ACTION

4. Search A Zone for a **car tailgating** a vehicle making a right turn, **who may zigzag** into your path.

REWARD

1. Reduce your speed.
2. Find Escape Path - Take LP5.
3. Flash high beam headlights.
4. Blow your horn.

Habit 4: Find Zigzaggers and Vehicles in LP2

Say: You're on a two-lane roadway when you detected an oncoming car that moved from LP1 to LP2.

ASK: 1. How would you describe that critical second?
Response: It's an unstable critical second.

ASK: 2. What actions should you take to prevent a head-on crash if that vehicle drifted over the yellow line?
Response:

1. Reduce your speed.
2. Find Escape Path - Take LP5.
3. Flash high beam headlights.
4. Blow your horn.

ASK: 3. What is a Zigzagger and what is the major error drivers make that results in zigzagging?

Response: A Zigzagger is a driver that zigs around a vehicle making a turn. Drivers tailgating, and not braking to open up space.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

18 Driving MIND™ Evaluations

Lane Departures and Rollovers

SAY: You experienced a Lane Departure as your car drifted off road while traveling at 50 mph on this Vermont highway.

ASK:

1. Point to where central vision and steering should be directed during this critical second.

2. Should you Brake? If so, explain how and when to brake?

Cover Responses when photo is viewed: Read aloud the answer after each response is made.

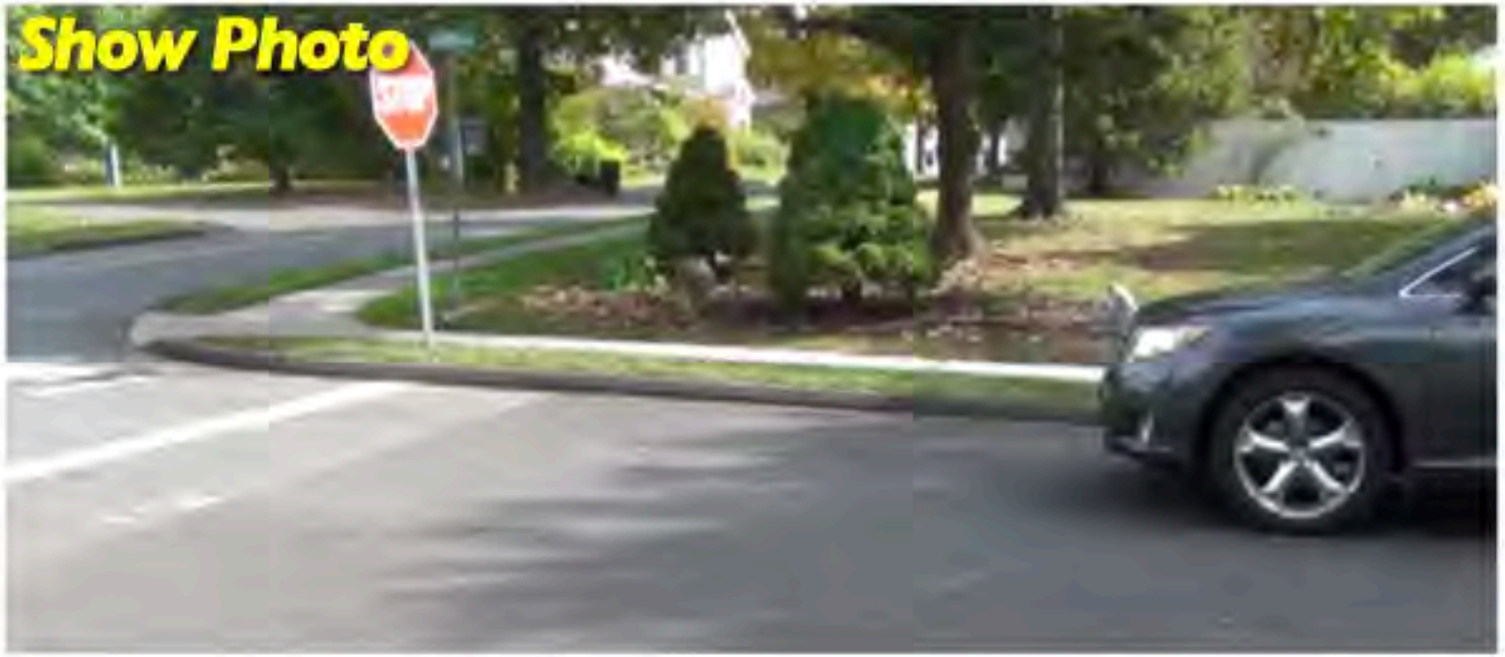
1. Central Vision and steering is directed downslope.

2. No Brake until the vehicle is downslope in control. Then, a light braking to reduce speed to 5 mph to get onto the road.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Making 45º and 90º Searches



ASK: **1**. What type of stop is shown here?

ASK: **2**. You're in position to make a 45º search, what are you searching for?

ASK: **3**. Point to where in the photo the front of your vehicle will be positioned when you are making a safety stop. What type of search are you able to make?

ASK: **4**. How far do you search when making a 90º search?

Cover Responses: **Read aloud** the answer after each response is made.

1. Staggered Stop. **2.** Looking for vehicles turning into the street. Looking for pedestrians, bicyclists, scooters crossing the road. **3.** The front of the vehicle will be even with the curb line. Make 90º search. **4.** Search deep to the target area.

Locate Gap, Hole, and Clusters

ASK: 1. What is the difference between a Gap and a Hole in the traffic flow?

Response:

A Gap is the space between two vehicles in a Traffic Flow. A Hole is the space between two Clusters in a Traffic Flow.

ASK: 2. What is a Cluster?

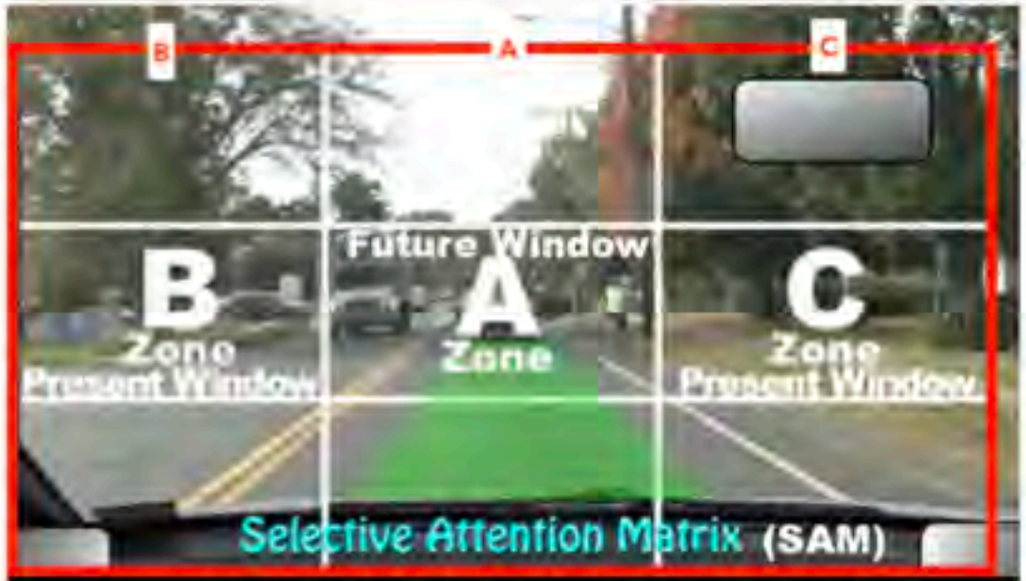
Response:

A Cluster is a group of vehicles traveling together. It most often is formed when traffic stops at a red light and gets grouped together. When the light changes, you have a cluster.

For Evaluator - After the trainee responds to your questions you can show the image above.

21 Driving MIND™ Evaluations

Evaluate Path-Of-Travel (POT) Open/Closed



Habit 5: Find "Go" or "Slow" Condition

SAY: You're practicing using SAM.

ASK: 1. What does SAM represent?
Response: **S**elective **A**ttention **M**atrix

ASK: 2. What are the three forward Zones or Windows and where are they located?
Response: The A Future Zone is to the Target Area. The B Present Zone is the lane to the driver's side. The C Present Zone is the lane to the passenger side.

Ask: 3. What are some of the conditions you are searching the A Future Zone for? In addition to looking for vehicles in LP2, what are two other conditions you are searching the A Zone for?
Response: • Look for open or closed zones • Look for go or slow conditions • Look for unstable critical seconds • Look for vehicles moving into LP2

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Control Rear Zone - Three types of Tailgaters

ASK: 1. What are the Six Searching Locations?
Response: A Future Zone, B and C Present Zones, A Rear Zone, B and C Rear Zones.

ASK: 2. How should the outside mirrors be adjusted?
Response: See a slight amount of the side of the vehicle and be able to see a vehicle directly to the rear.

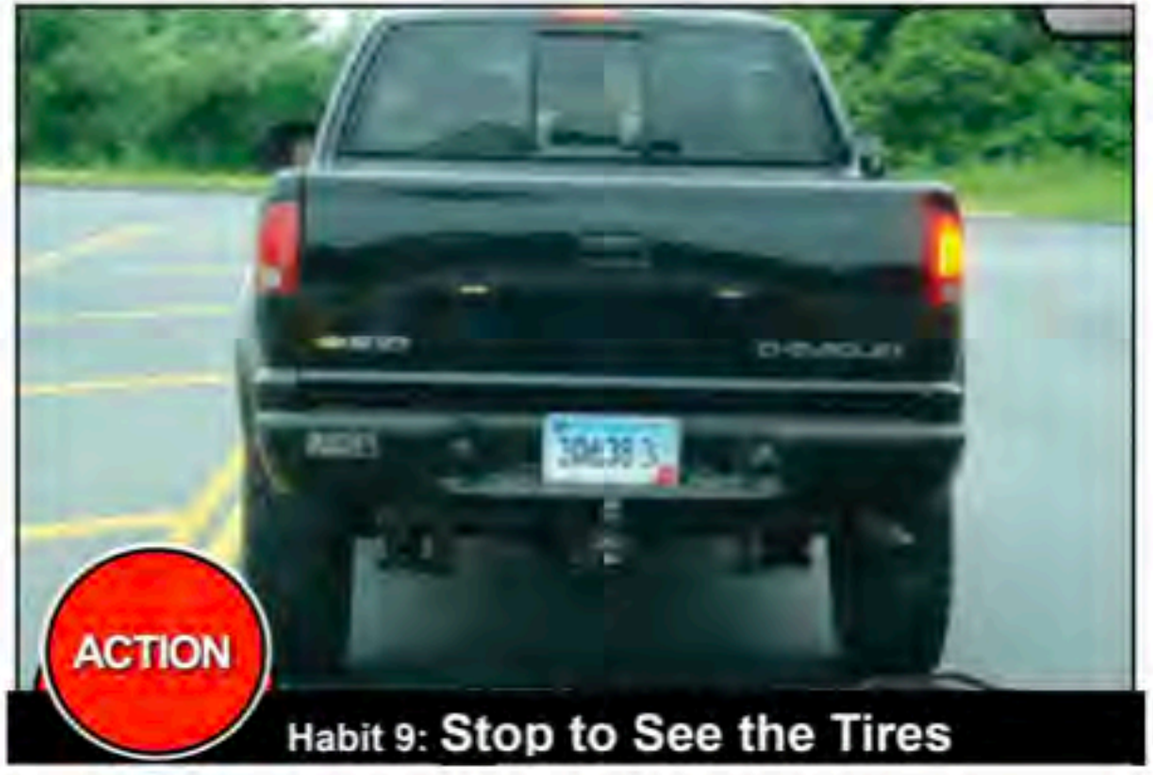
ASK: 3. What are the three Rear Zone Conditions?
Response: Open, Closed, Unstable rear zones.

ASK: 4. What are the three types of tailgaters?
Response: Charger, One-pacer, Habitual tailgater.

ASK: 5. What are the characteristics of each tailgater?
Response: A **"Charger"** approaches very fast and aggressively. A **"One-pacer"** travels at a set speed. regardless of whether you speed up or slow down. A **"Habitual"** will tailgate close to you regardless of whether you speed up or slow down.

23 Driving MIND™ Evaluations

Stop to See Tires - Avoid False Starts



ASK: 1. Explain at least three advantages for having the "Stop to See Tires" habit.

2. How do you avoid a false start?

Response 1.

- Gives you independence from others' actions.
- Gives you an escape path.
- Prevents being boxed in.
- Prevents stress.
- Puts you in control.
- Helps prevent robbery, carjacking, kidnapping.
- Eliminate or reduce rear-end crashes.
- Reduce severity of whiplash injury.
- In bumper-to-bumper traffic reduces distraction errors.
- Reduce intake of exhaust fumes.
- During slippery conditions, slide into empty space.

2. Make certain the vehicle ahead has a clear path when it begins to move before putting my vehicle in motion.

24 Driving MIND™ Evaluations

Rear Zone Conditions

Check Rear Zone
Closed Front Zone. Before, During, After Braking.

Is Rear Zone Open?
Open, Closed, or Unstable?

Tailgater Type
Charger, One Pacer, or Habitual?

When Stopped, Sand Barrels?

ASK: 1. What is an **Open Rear Zone?**
Response: It's when there are 2 seconds or more of space to the rear. And, when there is at least 12 seconds of vision to the rear.

ASK: 2. What is a **Closed Rear Zone?**
Response: The vehicle to the rear is less than 2 seconds away.

ASK: 3. What is an **Unstable Rear Zone?**
Response: It's when a vehicle is closing in on you at a fast pace.

ASK: 4. What are the characteristics of a **Charger Tailgater?**
Response: • Excessive speed on approach • Competitive • Wants to pass you • May force an opportunity to pass.

ASK: 5. What are the characteristics of a **One Pacer Tailgater?**
Response: • Travels at one pace (below, at, or above speed limit) • Gradual approach to your vehicle • Will close gap as you slow • Will stay back as you increase speed • Doesn't pass at first opportunity.

ASK: 5. What are the characteristics of a **Habitual Tailgater?**
Response: • Consistently tailgates • Will stay with you as your speed increases.

Awareness of LP1, LP2, L3, L4, L5

ASK: You have a closed C-Zone and an open B-Zone, which LP is best to use?

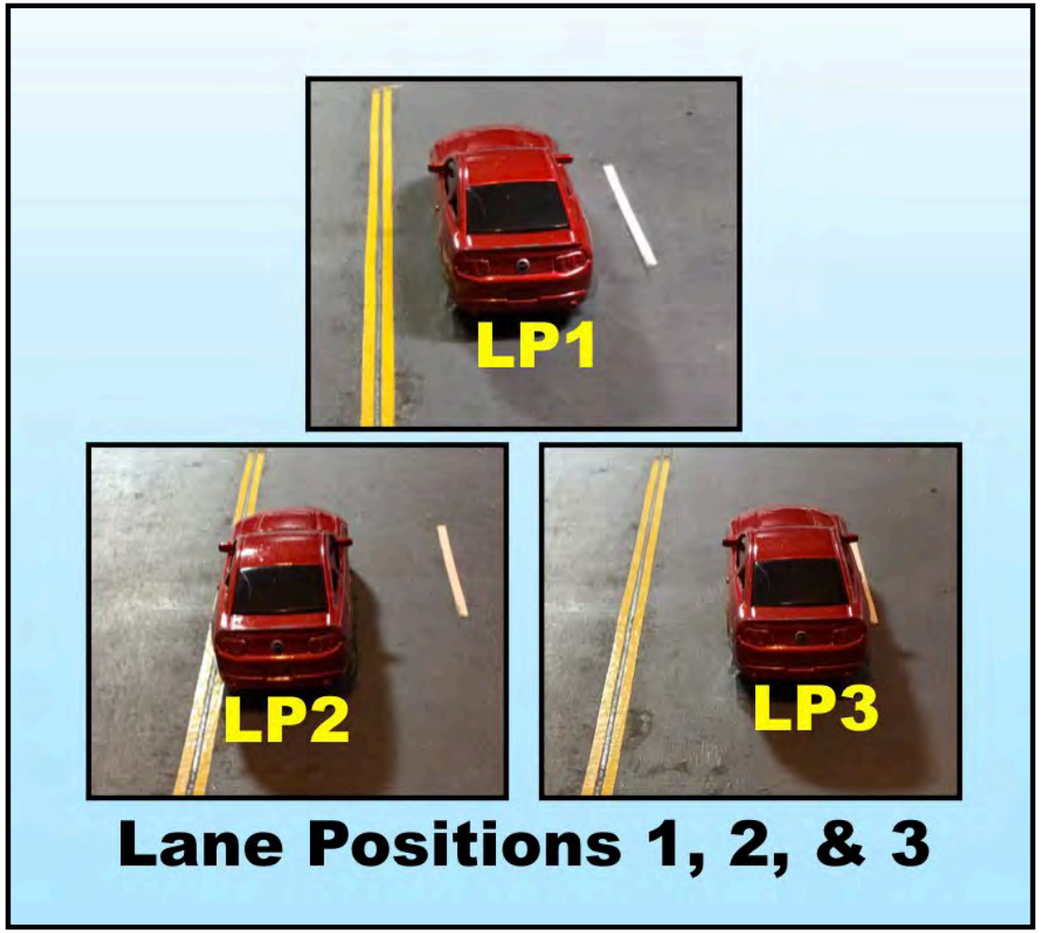
Response: LP2.

ASK: You have a closed C-Zone and a closed B-Zone, which LP is best to use?

Response: LP1.

ASK: You have a closed B-Zone and an open C-Zone, which LP is best to use?

Response: LP3.



ASK: 1. Where is LP4 and LP5 located and what are some situations that they should be used?

Response: LP4 is straddling the lane line to the B Zone. LP5 Is straddling the lane line to the C Zone. There are two conditions where these positions are of most value: 1. To block a rear vehicle from passing you on the right when there is a bicyclist ahead. 2. To provide more space from a LOS-POT blockage.

Approaching Curves - Slide Space

1. See and Respond to Curves in Target Areas

The initial detection of a curve is seen in your target area.

2. Test Tire-Road Grip

Before entering the curve when roads are wet from rain, dew, snow or ice, apply the brakes to test the tire-road grip. If the tires slide, reduce speed before entering the curve.

3. Look for Oncoming Traffic and Get the Best LP

Look into the curve by turning your head before you turn the steering wheel. If you cannot see at least four-seconds of road while entering the curve, your speed is too fast. **Reduce speed immediately.**

4. Look Into Curve - See Four-Seconds of Road

Look into the curve by turning your head before you turn the steering wheel. If you cannot see at least four-seconds of road while entering the curve, your speed is too fast.

For Evaluator - After the trainee responds to your questions you can show the image above.

Precision Turns - Crossing Traffic Flows

ASK: 1. Explain and demonstrate how each action is performed when making a left turn into a traffic flow:

A. Where is the side position and reference point?
Response: It's in LP2. Reference point is one foot in from the left side.

B. Where is the Forward Reference Point, Where is the Tpeg?
Response: Driver's body even with curb line. Corner post aligned to target.

ASK: 2. What are the three conditions of the rear zone?
Response: "Open, Closed, Unstable"

ASK: 3. What is a Cluster, Gap, and Hole of a traffic flow?
Response: Cluster is a grouping of vehicle together. A Gap is the space between two vehicles in the Cluster. A Hole is space between two Clusters.

For Evaluator: You should plan on conducting the evaluation of this if you give a rating of less than a 4. You also can ask for explanation and demonstration of other Precision Turns and Crossing Traffic actions.

Co-Drivers Turns - Crossing Traffic

Before Turning

1. Use of Signals
2. Mirror - Blind Spot Check
3. Side Position Reference Point
4. Speed Control - Brake
5. Smooth Legal Stop
6. Forward Position Reference Pt
7. Select Target
8. Search L-F-R for Gap or Hole

During Turn Entering Traffic Flow

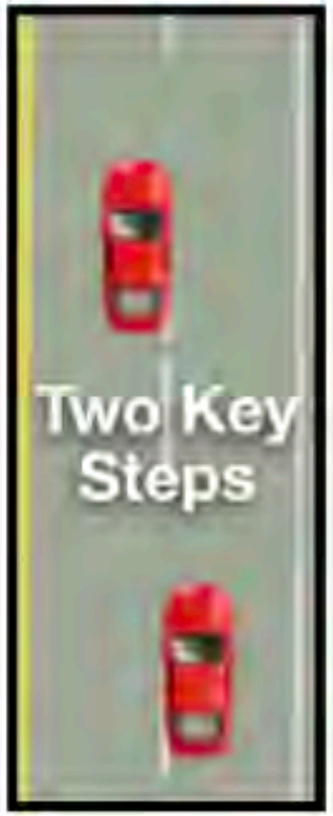
1. Avoid Hesitation
2. Look Into Turns, Target
3. Speed and Steering Control
4. Accelerate at Transition Peg
5. Controlled On Target Accuracy

After Entering Traffic Flow

1. Precision Turn Results
2. Re-evaluate Rear Zone

28 Driving MIND™ Evaluations

Precision Lane Change



SAY: **1. Pretend** you are the driver getting ready to make a lane change to the left lane.

You will be asked to explain each of the 12 actions for making a precision lane change. Begin with explaining number 1.

Responses:

1. To avoid making unnecessary lane changes.
2. To detect other vehicle that may be there.
3. To see what conditions you have to the rear.
4. The signal light is like asking for courtesy.
5. LP2 for left lane change. LP3 for right change.
6. Check outside mirror by moving head away.
7/8. Adjust speed to time an opening to enter..
9. LP2 or LP3 provides others with an escape path.

Co-Driver
Precision Lane Change

1. Why Change?
2. Check Other Lanes
3. Mirror Checks
4. Signal For Communication
5. Move To LP 2 or LP 3
6. Check Blind Spot
7. Time Arrival Open Side Zones
8. Increase Speed If Needed
9. Enter LP 2 or LP 3
10. Release Signal Light Lever
11. Mirror Check
12. Best Lane Position

For Evaluator: Have the trainee the trainee perform this activity on three different occasions. When you make a rating the points are recorded on the Index page. Each evaluation you make is recorded and the last rating is shown.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

29 Driving MIND™ Evaluations

Courtesy and Communication Options

ASK: 1. What's the meaning of **"It's a 3-Way Street?"**

ASK: 2. **a.** What search should you make at this "Critical Second?" **b.** What are you looking for? **c.** How can you be courteous?

ASK: 3. Which is safer for driving the bike, the left lane or the right lane, why?

ASK: 3. What does the turned tire of the vehicle in the left lane communicate?

Cover Responses: **Read aloud** the answer after each response is made.

1. It's a reminder that all must share the roadway. **2.** **a.** 45° search. **b.** See if the tires are turned towards the street. Check the mirror for movement. Search to the front of truck. **c.** Making a 45° search can find others to be courteous to and prevent a potential crash. **3.** The right lane is safer because you can see the driver in the mirrors. In the left lane you may have young passengers without awareness exiting. **4.** The front of the vehicle may swing into your path.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

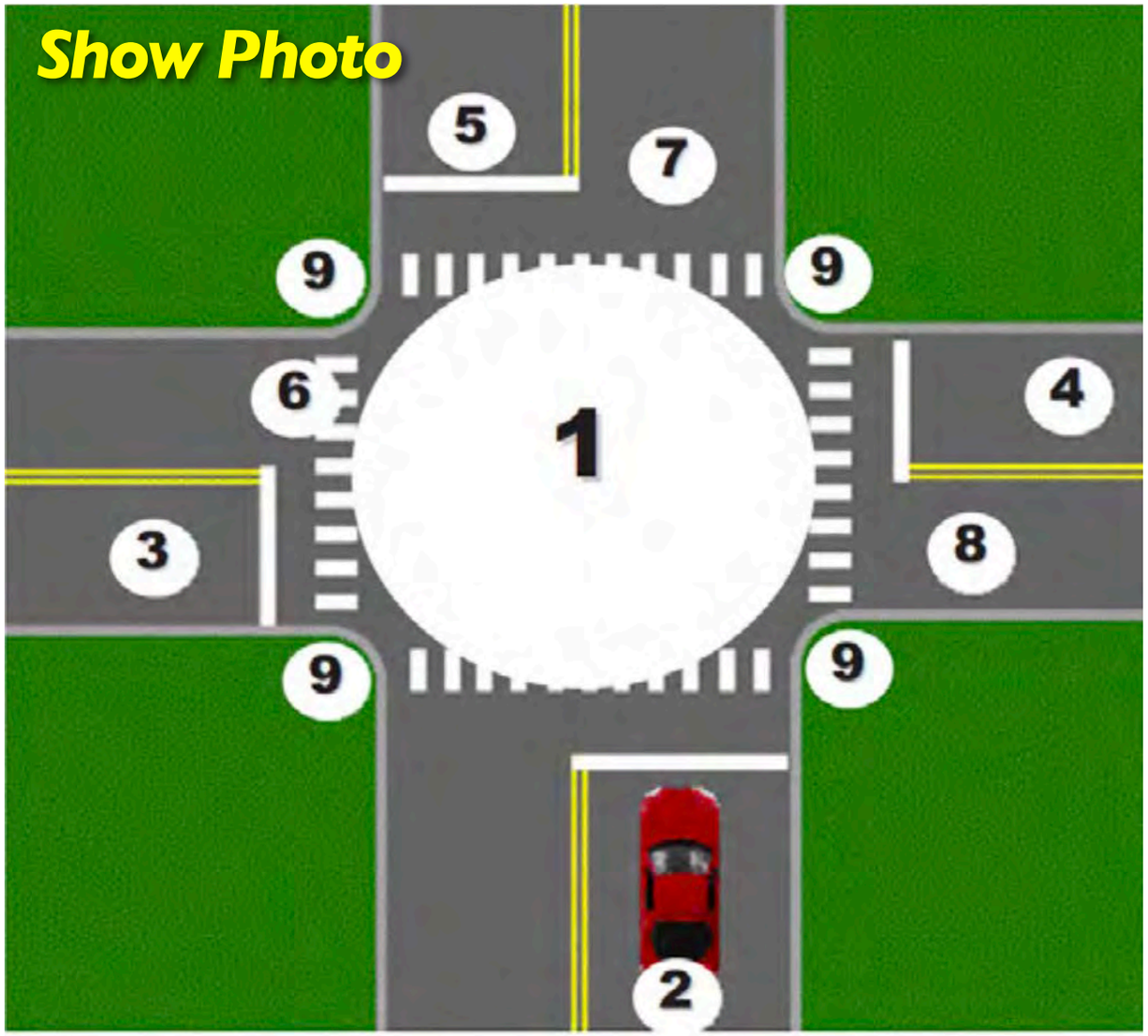
4 3 2 1

Control Conflicts on Approach to Danger Squares

ASK: 1. You are approaching this danger square (show photo). Explain what you are searching for at each of the numbered locations. Begin with telling me what you would be searching for in number 1's location.

ASK: 2. Tell me what you would be searching for in all of the other locations.

ASK: 3. You are preparing to make a "staggered stop." Which of the locations are you searching to determine whether a staggered stop is needed?
Response: Search both 9s, 3 and 4



Responses: At **#1** you are searching left, front, right zones for vehicles, bicyclists, and pedestrians that are in the danger square, or in a crosswalk. **#2** is awareness in the rear zone in case a stop is needed. **#3 and 4** you are searching for vehicles approaching. **#5** searching for a vehicle making a left turn. **#6. 7, 8** you are aware of vehicle that have just left the danger square. **#9** searching for pedestrians crossing.

31 Driving MIND™ Evaluations

Readiness - Vehicle Orientation

Observe the trainee Approaching the car and opening the door.

Observe the trainee After Entering the Car.

SAY: I'm going to ask you to perform various actions before moving the car. Do them as quickly as possible.

Evaluator: Observe the eye movement of the trainee to see if the action is taken instantly without a need to search for the item.

While Approaching The Car

1. Have Keys In Hand
2. Look Under the Car
3. Look At and Around the Car

Before Opening The Door

1. Look Inside the Car
2. Control the Door Swing

After Entering The Car

1. Adjust Head Restraint
2. Push Buttock into Seat
3. Adust Seat - Hand Position
4. Safety Belts on All
5. Adjust Mirrors
6. Turn Headlights On
7. Keep Windows Closed

Evaluator: With engine running and car in park, ask trainee to perform these actions without hesitation.

Orientation to Controls -Shift In "P"

1. Place Hands On Wheel
2. Use Directional Signal
3. Put Wipers On and Off
4. Turn Hazards Lights On & Off
5. Adjust Climate Control
6. Put Parking Lights On and Off
7. Use Headlights -Low & High
8. Adjust Sun Visor
9. Blow The Horn
10. Use Of Gas Pedal
11. Use Of Brake Pedal
12. Use Of Shift

Guide 1: Ready to Drive & Orientation to Vehicle

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Inching/Creeping Speed

With the driver behind the wheel and the engine running

SAY: Select a target ahead and place the car in motion staying on target. Make the car move inch-by-inch without a variation in speed.

SAY: Stop the vehicle smoothly. Select a target to the rear. Put the car in reverse. Use your mirrors and back-up camera (if you have one) and back to the starting point.

SAY: Stop. Go forward to the target at a creeping speed.

SAY: Stop. Back up to the starting point at a creeping speed.

Placing The Car In Motion

1. Right Foot On Brake
2. Shift To Drive
3. Release Parking Brake
4. Check Driving Path

Inching & Creeping The Car

1. Keep Foot On Brake
2. Release Partial Brake
3. Inching with Brake Control
4. Creeping at Idle speed

Evaluator: In addition to observing the motion of the vehicle, observe the eye movement of the trainee to see if the action is taken instantly with vision remaining outside the vehicle and not looking at the controls.

33 Driving MIND™ Evaluations

Smooth Acceleration and Stops

SAY: You're practicing using a water bottle.

ASK: 1. How are you to use the bottle?

ASK: 2. How are the skills developed by using the bottle applied to performance when behind the wheel?

ASK: 3. Where should you be looking while you are practicing?

ASK: 4. What process should you use to make smooth acceleration from a stopped position?

Cover Responses: Read aloud the answer after each response is made.

1. It is used as a brake pedal to practice releasing the pitch forces gradually to make smooth stops. **2.** Release braking pitch force slowly during the last two seconds of the braking action to prevent the car from bouncing up. **3.** Look ahead to avoid looking at the foot. **4.** Release the brake and let the idle speed get the vehicle in motion before applying acceleration.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

34 Driving MIND™ Evaluations

On/Off Target - Skid Control

SAY: **You're traveling at 30 mph.**

ASK:

1. Is the car on or off target?

2. Point to where central and fringe vision should be directed.

3. Explain what steering should take place.

Cover Responses when Photo is viewed: **Read aloud** the answer after each response is made. **1.** Off Target **2.** Central vision projected to the target area. Fringe vision sees the steering wheel in relation to the target. **3.** Steering is to the left towards the target.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

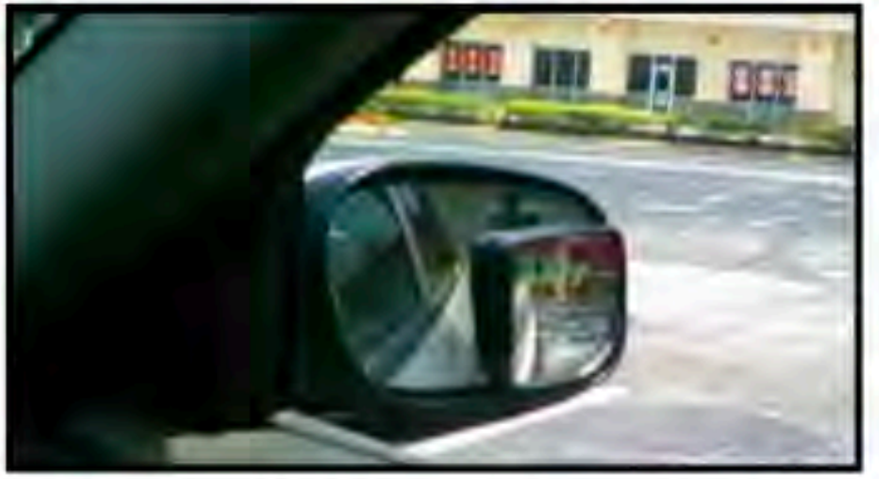
4 3 2 1

35 Driving MIND™ Evaluations

Demonstration of Reference Points

SAY: 1. Use the parking lines to demonstrate the following Reference Points.

1. Position the vehicle at the Safety Stop.
2. Show the Forward Reference Point for a Right Turn.
3. Select a Target and position the vehicle On Target.
4. Use the Target and place the vehicle for a Right Turn Tpeg.
5. Use the Target and place the vehicle for a Left Turn Tpeg.
6. Show the Side Position Reference Point for a Right Turn.
7. Show the Side Position Reference Point for a Left Turn.
8. Using mirrors and back-up camera stop at the rear reference point.
9. Use a line as a stop line and make a Staggered Stop.



Safety Stop and Right Turn Forward Position

For Evaluator - Select three or four of these reference points for the trainee to demonstrate. If any of them are not correctly demonstrated, select two more and give a 1 or 2 rating.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Staggered, Legal, Safety Stops

SAY: You're the driver of the SUV practicing in a parking lot. Both vehicles A and B are stopped.

ASK:

1. What **two positions** is **Vehicle A** stopped at?

2. What position is **Vehicle B** stopped at. What type of search is being made?

3. **What are the benefits** of being prepared to make a Staggered Stop when approaching an LOS-POT Blockage?

4. What does LOS-POT represent?

Cover Responses:

1. With the front **of Vehicle A even with the curb line** vehicle A is at the **Safety Stop Position** and this position is also the **Forward Reference Point** for making a right turn. **2.** Staggered stop. A **45º Search** is made. **3.** Prevents turning vehicles from impacting our vehicle. It makes space for large vehicles to turn. **4. LOS-POT** means **L**ine-**O**f-**S**ight, **P**ath-**O**f-**T**ravel.

37 Driving MIND™ Evaluations

Precision Turns - Turnabouts

SAY: 1. Select a target to make a left turn and position the vehicle at the **Forward Reference Point.**
Response: Give feedback, okay or not okay.
SAY: 2. Demonstrate how to **Search** the intersection and locate a **Gap** or **Hole** to enter.
Response: Give feedback for both actions.
SAY: 3. Make the turn and stop at the Tpeg.
Observe whether the head was turned before steering took place and whether the Tpeg stop was accurate. Provide feedback.
ASK: 4. What actions should take place at the Tpeg?
Response: Increased acceleration and recovery of steering to on-target position.
SAY: 5. Find a target to make a right turn. And position the vehicle in relationship to a parking line as if it is a curb line.
Response: Repeat the sequence of actions that were performed for the left turn. Then, have the trainee make a left and a right turn without stopping at the Tpeg. Observe if an increase in acceleration takes place at the Tpeg..

Before Turning

1. Use of Signals
2. Mirror - Blind Spot Check
3. Side Position Reference Point
4. Speed Control - Brake
5. Smooth Legal Stop
6. Forward Position Reference Pt
7. Select Target
8. Search L-F-R for Gap or Hole
9. Get Commitment

During Turn

1. Avoid Hesitation
2. Look Into Turns, Target
3. Speed and Steering Control
4. Accelerate at Transition Peg
5. Controlled On Target Accuracy

After Turn

1. Precision Turn Results
2. Re-evaluate Rear Zone
3. Evaluate A-Zone LOS-POTs

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Guide 11: Backing — Mirrors and Back-up Camera

ASK: 1. You are getting ready to back into a parking space. Your vehicle doesn't have a backup camera. How will you be searching while backing? Demonstrate doing it.

Response:
Check the path you will be using before entering the vehicle. Use both outside mirrors, properly adjusted, (to see a slight amount of the side of the vehicle) — and the rearview mirror. Continually search all three mirrors with one-second pauses. When a turning action is taken, check the path the front of the vehicle will be swinging into.

ASK: 2.
Look at the photos to the right and explain how the backup guide relates to the bottom photos.

Response:
When the backup guide is straight in the parking space, the vehicle will be straight. The red line shows where the vehicle's rear bumper will be positioned.

Forward and Angle Parking

Show Photo

1. **Before Parking** search for cars and pedestrians. Check Rear Zone. Locate space.
2. **Side Position** Get at least 6-8 feet from parked cars.
3. **Forward Position** is to see a target in the center of the space (see photo).
4. **Creep and Turn Wheel Fast**
5. **Line up with Target** If target is close, like a parking meter, it will shift toward the center of your car as you get closer to it.
6. **Straighten Tires**
7. **Stop at Forward Reference.**

The diagram shows the car at the Side and Forward Position, ready to turn the steering wheel.

Use a parking lot with Angle Spaces.

SAY: I would like for you to select a parking space we will use.

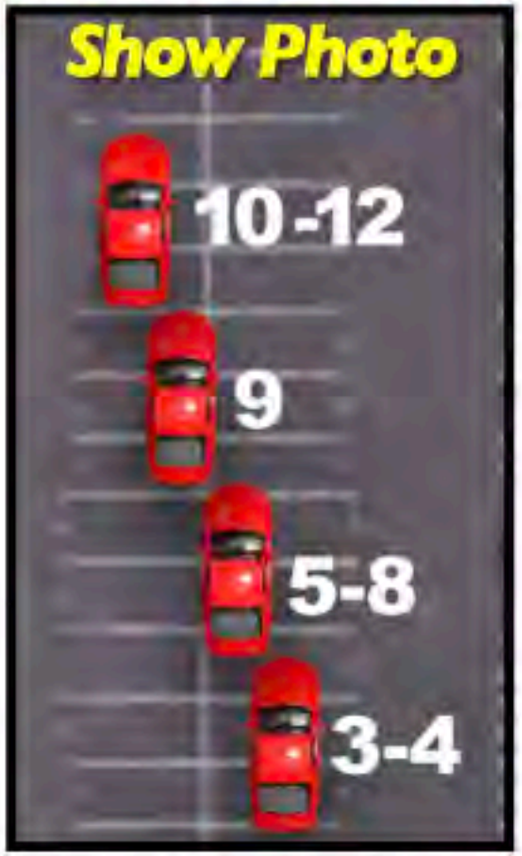
SAY: Explain each of the actions used to angle park with precision. Start with getting the correct side position and explaining what the reference point is.

Observe each step of the task according to those listed here. Give feedback for each step as it is performed by naming the action, such as, "your **side position** is good."

Evaluator: Observe each step of the procedure. You can also ask the trainee to demonstrate any one of the 7 steps if you need more performance to evaluate.

40 Driving MIND™ Evaluations

Precision Lane Change



SAY: **1.** Look at the photo and pretend you are the driver getting ready to make a lane change. What actions would you take at 3 and 4?

ASK: **2.** What LP is the car in at #5?

SAY: **3.** Demonstrate how to make a Blind Spot check.

ASK: **4.** As you're in LP2 ready to enter your gap, how do you manage speed?

SAY: **5.** Explain the actions to take at steps 10-12.

SAY: **6.** Start the vehicle. Move into LP1. And demonstrate each step of the lane change.

Cover this Guide

1. Why Change?
2. Check Other Lanes
3. Mirror Checks
4. Signal For Communication
5. Move To LP 2 or LP 3
6. Check Blind Spot
7. Time Arrival Open Side Zones
8. Increase Speed If Needed
9. Enter LP 2 or LP 3
10. Release Signal Light Lever
11. Mirror Check
12. Best Lane Position

Cover Responses: **Read aloud** the answer listed on the Guide after responses **#1, 2** and **5** are made. **3.** View the mirror with your head forward and slightly away. **4.** Increase Speed. **6.** Use the Guide to evaluate each step.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

41 Driving MIND™ Evaluations

Avoiding Lane Departure - Evasives

ASK: 1. Explain the three steering actions necessary to take an evasive steering action.
Response: 1. Steer left or right. 2. Steer twice as much in the opposite direction. 3. Steer the same amount, and in the same direction, as the first steering action. The eyes should be to the target.

SAY: 2. See that box ahead? We will treat that as an obstacle that needs to be avoided. Line up on target with it. Then, you will go 10 mph when I say "go" and take an evasive when I call for Left or Right. Then, stop on-target.

Have the trainee view this photo.

ASK: 3. This truck ran off the road into the downslope of the median. What actions should the driver take at this critical second. Where should he be looking?

Evaluator: 2. Observe that the trainee's eyes stay fixed to the target area while steering takes place. **3. Response:** The driver should stay in the ditch. Steer toward the target area.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

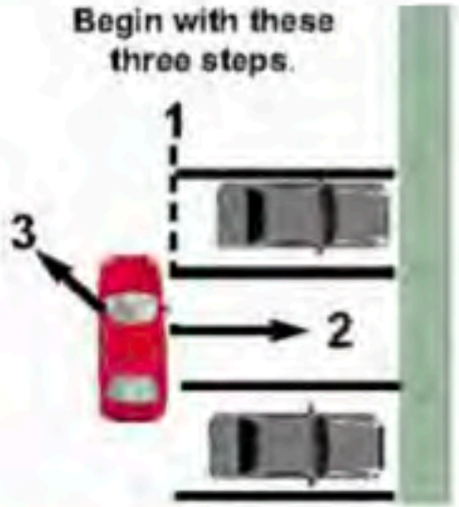
4 3 2 1

42 Driving MIND™ Evaluations

Backing Into Space

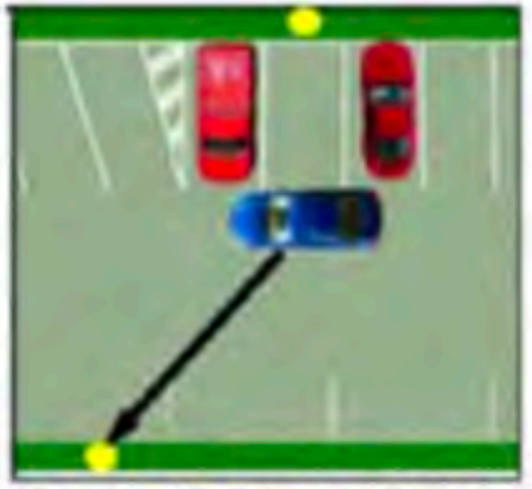
Use a parking lot with perpendicular spaces.

SAY: I would like for you to locate a parking space and back into it.



1. Side Position
2. Forward Position
3. Select 45-Degree Target
4. Creep - Turn Wheel Fast
5. Use The Least Forward
6. Line Up Car With Space
7. Shift To Reverse
8. Back To Rear Pivot Point
9. Inch - Turn Wheel Fast
10. Get Car Straight In Space
11. Inch - Straighten Tires
12. Back To Rear Reference

Forward Position Target


Select 45-Degree Target


Back to Rear Pivot Point


Back to Rear Reference

Evaluator: Observe each step of the procedure, especially the four key steps that are shown above. You can also ask the trainee to demonstrate any one of the 12 steps if you need more performance to evaluate

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

43 Driving MIND™ Evaluations

Parallel Parking

1. Rear Zone Control - Signal Check for cars to the rear. Tap brake lights and put right signal on to warn rear traffic of slow-down.

2. Speed Control
Avoid making fast stops.

3. Locate Parking Space
Search for an available and acceptable parking space.

4. Side Position - 3 Feet from parked cars Use reference point to ground level.

5. Stop Even With Space
While stopped even with the space, let traffic to the rear know that you are planning to park. Evaluate the parking space for adequate size and clear of objects.

6. Go Forward - Pull forward beyond the pivot point.

7. Back to Rear Pivot Point
Back to the rear pivot point to align rear bumpers.

8. Left-Front Corner Swing
Check outside mirror to be certain that the swing of the car will not move into the path of any passing cars.

9. Creeping Speed - Turn Wheel Fully to the right (toward curb)

10. Back to 45-degree Angle
When the car is at a 45 degree angle, the curb-side rear corner of the parked car should appear aligned with your body.

11. Creep and Time Turning to Clear Front Car - Turn the wheel to the left (away from curb). The closer your front bumper gets to the front car, the tighter space you can park in.

12. Straighten Tires, Center Car
Straighten tires to center car. When parked on an upgrade turn tires toward the street. Turn tires toward the curb on downgrades.

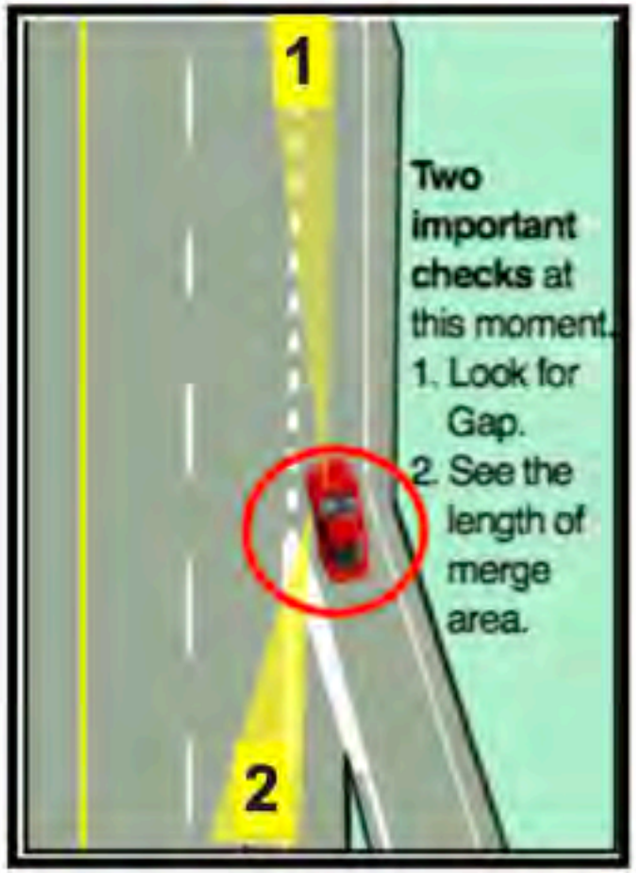
Evaluator: Use a parking lot with perpendicular lines. Use a line as if it is a curb line. Have the trainee "parallel park" next to a vehicle that is parked there. Only do it one time in any given space. Evaluate each step and give feedback.

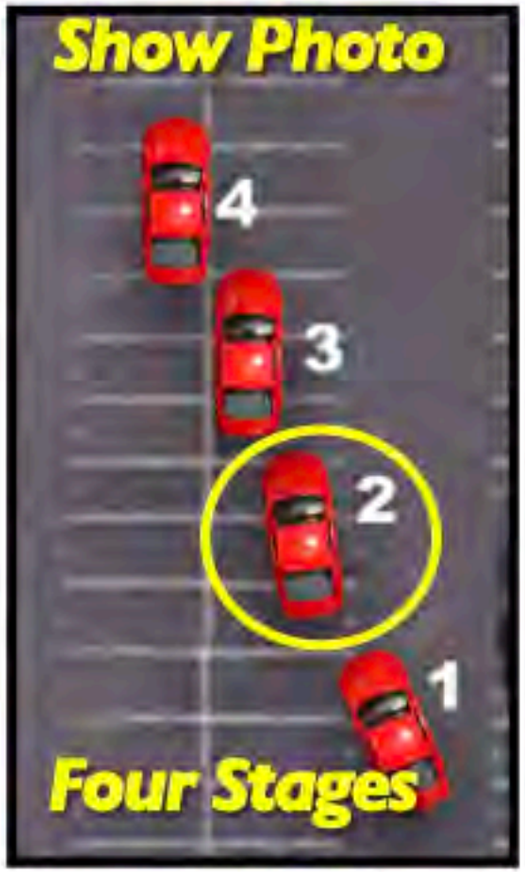
4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

44 Driving MIND™ Evaluations

Entering/Exiting Freeways in a Parking Lot





SAY: Look at the photo and pretend you are the driver getting ready to enter a Freeway. Position 2 represents beginning to enter the acceleration lane.

ASK: **1.** Explain why the two searches at this moment are needed.

SAY: Demonstrate and explain the use of these four stages.

1. On the Entrance Ramp
2. Entering the Acceleration Lane
3. On the Acceleration Lane
4. Entering the Travel Lane

Read aloud the answer after the response is made. **1.** See the length of the acceleration lane you have available. And, search to the rear for a gap or hole to enter. These two searches will determine the speed to use on the acceleration lane to time an opening to enter.

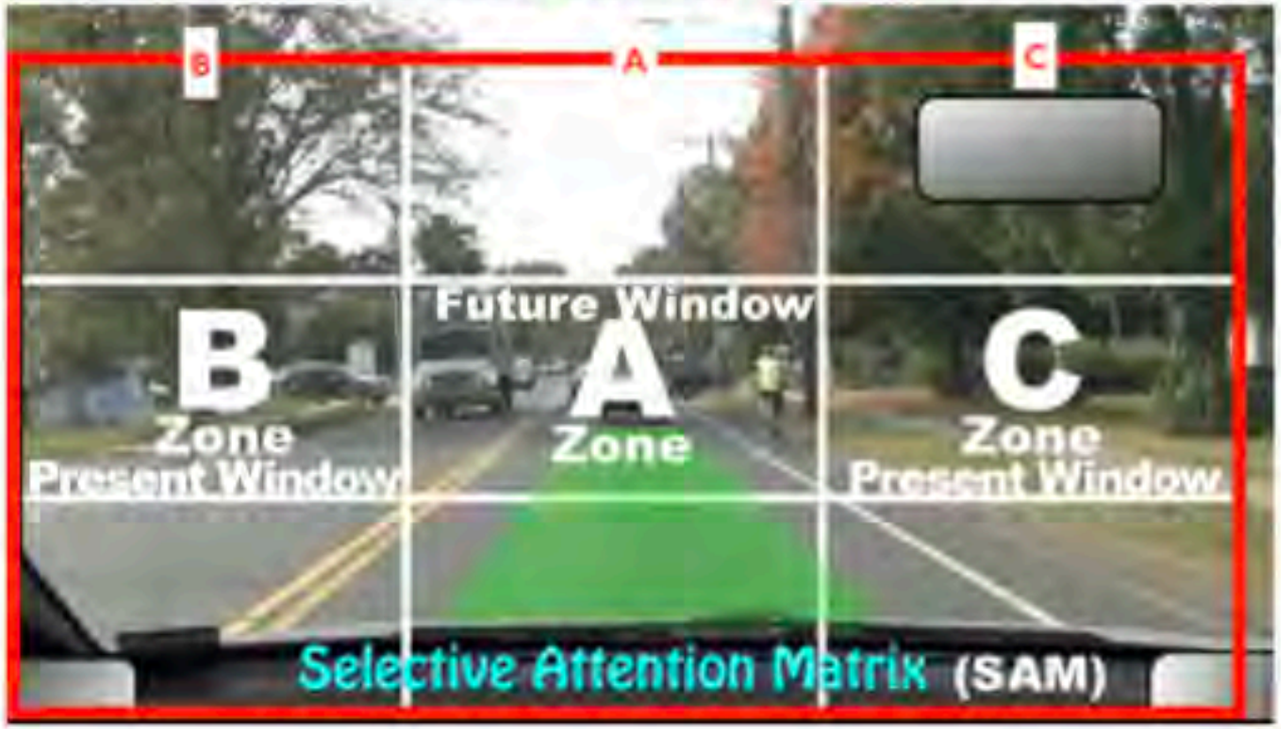
45 Driving MIND™ Evaluations

Show Photo

Selective Attention Matrix - Go or Slow

SAY: 1. Take a look at the image of SAM. During our drive today, you will be expected to tell me when you see a change in conditions that requires a "Slow" speed control. Then, say what it is that creates the slow condition and response to it. Also, tell me when you find oncoming vehicles in LP2.
Response: When correct actions are taken, give positive feedback. When wrong actions are taken make no comment at this time.

Search A Zone for "Go" or "Slow" and for LP2



For Evaluator, read this before conducting the evaluation. When making evaluations on the road you want to minimize reading while the vehicle is in motion. When you see **"Show Photo"** you want to tell the trainee to find a location to park and secure the vehicle. Then, you will have the Trainee's full attention for what is to be performed. And, you have an opportunity to evaluate use of Task 16 - "Entering and Leaving Traffic Flows." Use #16, then come back here.
See how timely the trainee's awareness and response to "slow" situations take place. When errors are made, try to redo the task. If the same errors are made the second time, tell the trainee what error was made and mark the rating as a 2 or 1.

LOS-POT Blockages, Critical Seconds 45º Search

SAY: 1. Take a look at the image of "Critical Seconds." During our drive today in addition to search the A Zone for "slow" conditions and LP2's, you will search the B and C Zones for LOS-POT Blockages and Critical Seconds. Tell me when you find a B or C Blockage Critical Second and identify when it is an "Unstable Critical Second." Take the best speed and LP to control it.

Response: When correct actions are taken, give positive feedback. When wrong actions are taken make no comment at this time.

Find LOS-POT Blockage with Critical Seconds

For Evaluator, read this before conducting the evaluation. Regardless of which strategy you are evaluating, you always want to see how effectively identification and response to Critical Seconds are made. When errors are made, try to redo the task as soon as possible. If the same errors are made the second time, tell the trainee what error was made mark the rating as a 2 or 1.

47 Driving MIND™ Evaluations

Detect and Control 4-Second Danger Zone

SAY: 1. Take a look at the image showing the Find, Solve, Control of the 4-Second Danger Zone. Tell me when you find a Critical Second and a LOS-POT Blockage. Take the best actions to control the 4-Second Danger Zone.
Response: When correct actions are taken, give positive feedback. When wrong actions are taken make no comment at this time.

The **"Critical Second"**– when you are within one second of others!

1. **FIND: Critical Second in the A Zone Window (Target Area)**
2. **SOLVE: Critical Second Before Reaching the Danger Zone**
   - Detect LOS-POT Blockage
   - Get Best Speed Control, LP, Communication
3. **CONTROL: 4-Second Danger Zone**
   - Separation, Speed Control, LP, Communication

For Evaluator, read this before conducting the evaluation. Regardless of which strategy you are evaluating, you always want to see how effectively identification and responses to Critical Seconds are being made. When errors are made, try to redo the task as soon as possible. If the same errors are made the second time, tell the trainee what error was made, mark the rating as a 2 or 1.

48 Driving MIND™ Evaluations

Precision Turns - Crossing Traffic Flows

SAY: **1.** At the next intersection, make a right/left turn (you decide which turn).

Observe: **2.** Side Position Reference Point. If good, tell the trainee.

ASK: **3.** What is the condition of your rear zone?
Response: Trainee should state one of these: "Open, Closed, Unstable"

ASK: **4.** Where is the Gap or Hole that you will enter?
Response: There should be no hesitation with the response made, and it should be correct.

Observe: **5.** Detect an increase in acceleration exactly at the Tpeg. If good,
SAY: Your acceleration had perfect timing at the Tpeg.

For Evaluator, read this before conducting the evaluation.
Conduct this at least three times. Have only 3-4 pre-determined actions to observe. If you have a route plan printed, follow it. If not, see an intersection ahead to direct the trainee to.

Before Turning

1. Use of Signals
2. Mirror - Blind Spot Check
3. Side Position Reference Point
4. Speed Control - Brake
5. Smooth Legal Stop
6. Forward Position Reference Pt
7. Select Target
8. Search L-F-R for Gap or Hole
9. Get Commitment

During Turn Entering Traffic Flow

1. Avoid Hesitation
2. Look Into Turns, Target
3. Speed and Steering Control
4. Accelerate at Transition Peg
5. Controlled On Target Accuracy

After Entering Traffic Flow

1. Precision Turn Results
2. Re-evaluate Rear Zone
3. Evaluate A-Zone LOS-POTs

49. Driving MIND™ Evaluations

Search for Opportunities to be Courteous

ASK: 1. Why is being courteous a Gift to Yourself?

Response:
When you find someone to be courteous to have awareness of the situation and you are not likely to be surprised into a dangerous response.

SAY: 2. Look at this photo. Read the five steps to being courteous. While we are driving today, see how many opportunities you find to be courteous.

Show Photo

AWARE

Find two or three opportunities to be courteous each day!

1. Look for those who want to enter your POT.
2. See if they have a clear path to enter.
3. Check rear zone for traffic present, or not.
4. Reduce speed to open up your gap.
5. Flash headlights to communicate. Don't wave them on.

For Evaluator - Observe what actions the trainee performs when there are opportunities to be courteous.

50 Driving MIND™ Evaluations

Detect and Control 4-Second Danger Zone

SAY: 1. Take a look at the image showing the Four Searches to Make when stopped for a Green light while attempting to make a left turn. I will ask you to tell me the searches you are making and what conditions you find for each search.

Response: When correct actions are taken, give positive feedback. When wrong actions are taken make no comment at this time.

1. Check Rear
2. Find Gap
3. See Path
4. See LIght

Know condition of traffic from right.

For Evaluator, read this before conducting the evaluation. Regardless of which strategy you are evaluating, you always want to see how effectively identification and responses to Critical Seconds are being made. When errors are made, try to redo the task as soon as possible. If the same errors are made the second time, tell the trainee what error was made mark the rating as a 2 or 1.

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Guide 28: Timing Side Zones

ASK: 1. What is an example of a most common "fixed C-zone change" and how do you manage it when you have a moving closed B-zone?

Response:
Parked vehicles create the most common fixed C-Zone presenting two challenges to be managed. They create LOS-POT blockages that need to be managed. And, there may be oncoming vehicles in the B-zone that need to be managed by adjusting speed if needed to let the vehicle in the B-zone pass the parked vehicle before you arrive.

ASK: 2. What do you need to do to manage the LOS-POT Blockage?

Response:
Cover your brake and make a 45-degree search to detect anything that may enter your path. Demonstrate during your drive today how you can "time side zones."

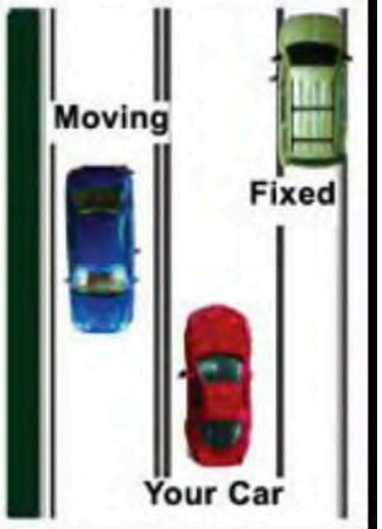
Identify Fixed Side Zone Changes

A fixed zone change is one that is not moving and is not likely to move before you reach its location. **Fixed zones are stable "critical seconds" that may become unstable. They require full attention.**

Time B Zone with Fixed C Fixed

Use speed control to time the B Zone — which is the moving car — to pass each vehicle while separated by an open zone to the other side.

Show Photos



Controlling Merge Areas

While on a multi-lane highway when there is a Merge Sign.

ASK: 1. Before your vehicle gets even with the merge sign, which Zone do you want to search?
Response: Evaluate the B and C Rear Zones to adjust speed for one to be open. When your vehicle is at the Merge Sign it is the **4-Second Danger Zone**.

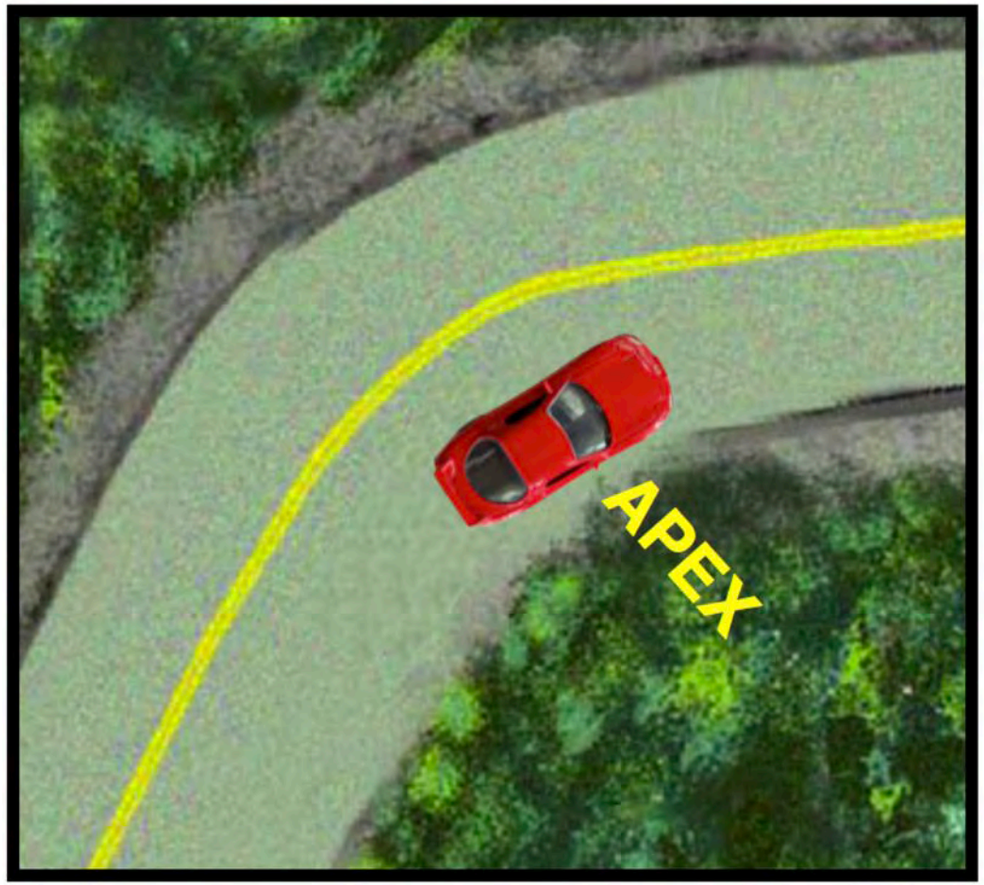
Merge Areas

1. See merge sign in A Zone
   - Evaluate B and C Rear Zones
   - Plan for Open Zones
2. At 4-Second Danger Zone
   - Check B or C Rear Zones
   - Adjust Speed and LP
   - Get Open Zone at Merge
3. See Cars on Entrance Ramp
4. At PONR Adjust Speed

For Evaluator, read this before conducting the evaluation. When there are no Merge Areas to evaluate the trainee's performance, select any sign in the Target Area. Tell the trainee to treat that sign as if it is a merge sign and you are on a three-lane freeway in the center lane. **Ask,** explain where you should search and what are you searching for? Use the actions listed above for correct responses. If there is a red light ahead when the question is asked, you are able to evaluate how the trainee performs when distracted.

53 Driving MIND™ Evaluations

Guide 53: Approaching Curves — Control "Slide" Space



ASK: 1. When entering a curve where is the most demand placed upon the grip of your tires to the road.

Response:
Most demand is placed at the apex.

ASK: 2. Where is the Apex in a curve and what do you want to do before reaching it?

Response:
The Apex is the point of a curve where the energy of motion is changing direction. It's the peak of the curve. Before reaching the apex you want to be certain that you have your speed under control by having used "slide space" during slippery road conditions. And, be able to reduce speed to see at least four-seconds of road into the curve before reaching the apex during all road surface conditions.

Demonstrate the approach to curves. Show how to use slide space, and searching four-seconds into curves.

54 Driving MIND™ Evaluations

Intersections - Roundabouts

Observe, while approaching an intersection **1.** If the rear zone was checked and the correct lane positioning.

SAY: **2.** Demonstrate and explain how to effectively search this intersection.
Response: Search Left, Front, and Right Zones from Best to Worst views. Make a 45º search at the worst LOS.

For Evaluator: You should plan on conducting these evaluations three times. If there are no roundabouts you can have the trainee explain actions using their "Stylus Car" with the image above. Each time, have only 3-4 pre-determined actions to observe. If you have a route plan printed, follow it.

Approaching Intersections

1. See Inter. In Target Area
2. Check The Rear Zone
3. Select Best Lane/Position
4. Search Left, Front, Right
5. Speed Control For LOS
6. Point-Of-No-Return

Approaching Roundabouts

1. See Roundabout In Target Area
2. Decide which exit to take
3. Yield to left, enter to right
4. Be alert to others entering
5. For multiple lanes, enter inside
6. To exit, lane change to outside
7. Use signal light
8. Use outside mirror
9. Look into exiting path

4=Correct without Hesitation **3**=Correct Hesitated **2**=Okay with Coaching **1**=More Practice Needed

4 3 2 1

Rural Highways Zone Control Strategies

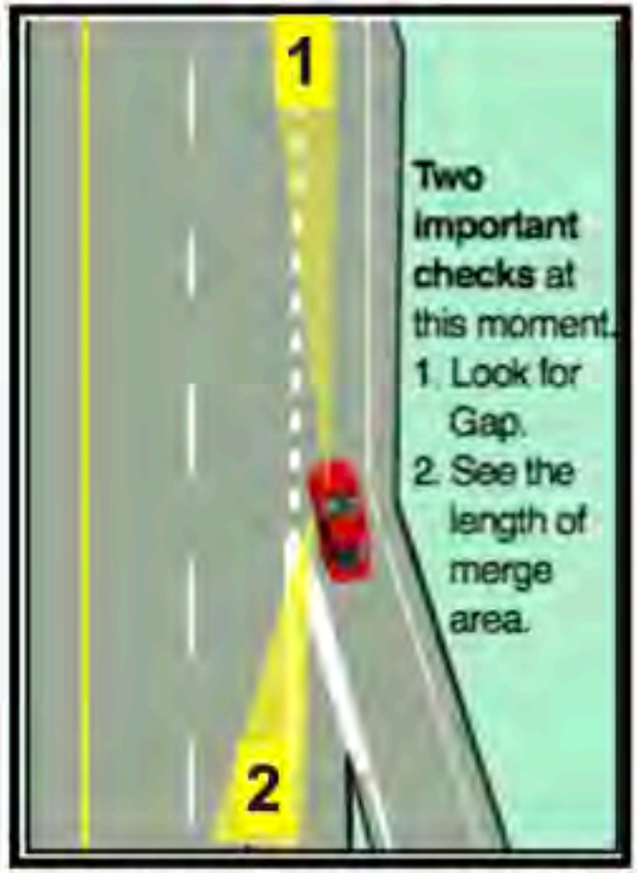
ASK: 1. In addition to managing speed control into curves on rural highways what are some of the other situations that contribute to crashes?

Response:
There are frequent LOS-POT Blockages created by brushes where vehicles can suddenly enter your path. There are pedestrians and bicyclist that may be along the roadside that need to be managed. And there are vehicles that may be traveling slower than you want to travel without opportunity to pass.

ASK: 2. What should you do when there is a slow moving vehicle ahead and no opportunity to pass it?

Response:
The best response to prevent being irritated by the slow speed is to increase your separation space from 4 seconds to 10 seconds where for most of the time it will be like there Is no vehicle in front of you. After you try this a few times you will discover how relaxing it is and how you are totally in control as compared to tailgating the driver.

Entering/Exiting Freeways



While on a rural highway, SAY: Find an area to pull off the road and stop the vehicle.

ASK: 1. When you are ready to enter the acceleration lane what two searches do you want to make and what are you searching for?
Response: Search ahead to see the length of the Acceleration Lane, and search to the rear for a hole or gap to enter.

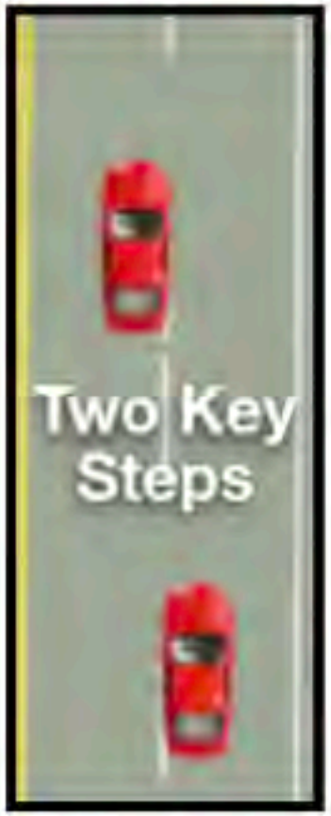
ASK: 2. Pretend this is a Freeway you will be entering. Explain what actions you will be taking. Then, actually perform those actions and enter this highway as if it is a Freeway.

Entering Freeways

1. Check the Rear Zone
2. Keep 4 Seconds of Space
3. On Ramp, Outside Mirror
4. Search for Gap to Enter
5. See length of Merge Lane
6. Find Gap, Signal Light On
7. Accelerate to Blend In
8. LP2 or LP3 for Lane Entry
9. Mirror Checks
10. Get Speed Control

For Evaluator, read this before conducting the evaluation. Before entering a Freeway, or in place of a Freeway, you can perform a simulated entry. On a rural highway, find a location where you can stop the vehicle off the road and have a clear POT ahead and a good sight distance to the rear. Then ask the driver to demonstrate each of the ten steps of "Getting on the Freeway." When entering an actual Freeway, observe the driver's performance of the four key stages.

Precision Lane Change



SAY: 1. Make a lane change to the left/right lane when you are able to.
Observe actions 3, 4, 5, 6. Then, observe and evaluate actions 7, 8, 9. Once in the new lane observe 10, 11, 12.

Precision Lane Change

1. Why Change?
2. Check Other Lanes
3. Mirror Checks
4. Signal For Communication
5. Move To LP 2 or LP 3
6. Check Blind Spot
7. Time Arrival Open Side Zones
8. Increase Speed If Needed
9. Enter LP 2 or LP 3
10. Release Signal Light Lever
11. Mirror Check
12. Best Lane Position

For Evaluator, read this before conducting the evaluation. Have the trainee make no less than three lane changes. Have three or four of the actions pre-determined that you will evaluate each time. When you make a rating the points are recorded on the Index page. Each evaluation you make is recorded and the last rating is shown.

Guide 31: Night Driving Conditions

ASK: 1. What is the difference during night-time between the conditions of a new moon and a full moon?

Response:
A full moon provides better lighting than a new moon to have your peripheral vision detect pedestrians and bicyclists. Whatever the moon condition is, always project your vision beyond the range of your headlights to your target area.

ASK: 2. What searching actions should you perform during nighttime driving?

Search Beyond Your Headlights
In this photo, the circled area shows a red light and headlights of approaching vehicles.

Response:
Search at least 15 seconds beyond the range of headlights. Look to Target Area for clues that will tell you if it is open or closed. Evaluate your path of travel. Use High Beams when: no cars are passing; no vehicles are ahead; there are no oncoming cars; and, not in the city. Glance to right to avoid glare from oncoming cars. Look for cars without headlights on entering from gas stations and other illuminated parking areas.

Guide 32 Passing the “Pretend Red Truck”

ASK: 1. Explain how you practiced passing the “pretend red truck,” and what is the value of doing it?

Response:
There will be few opportunities during training to be in a situation where passing a vehicle should, and could, take place. Therefore, you can experience simulated practice by use of a “pretend red truck” to develop judgement and perceptions necessary for a successful pass.

While on a two lane highway, pretend there is a very slow moving "red truck" in front of you. Find a safe and legal location to pass. When a location is found, begin the “passing” by counting 1001, 1002, etc. If an oncoming vehicle passes your car within 10 seconds from the beginning of the "pretend" pass, it would not have been safe.

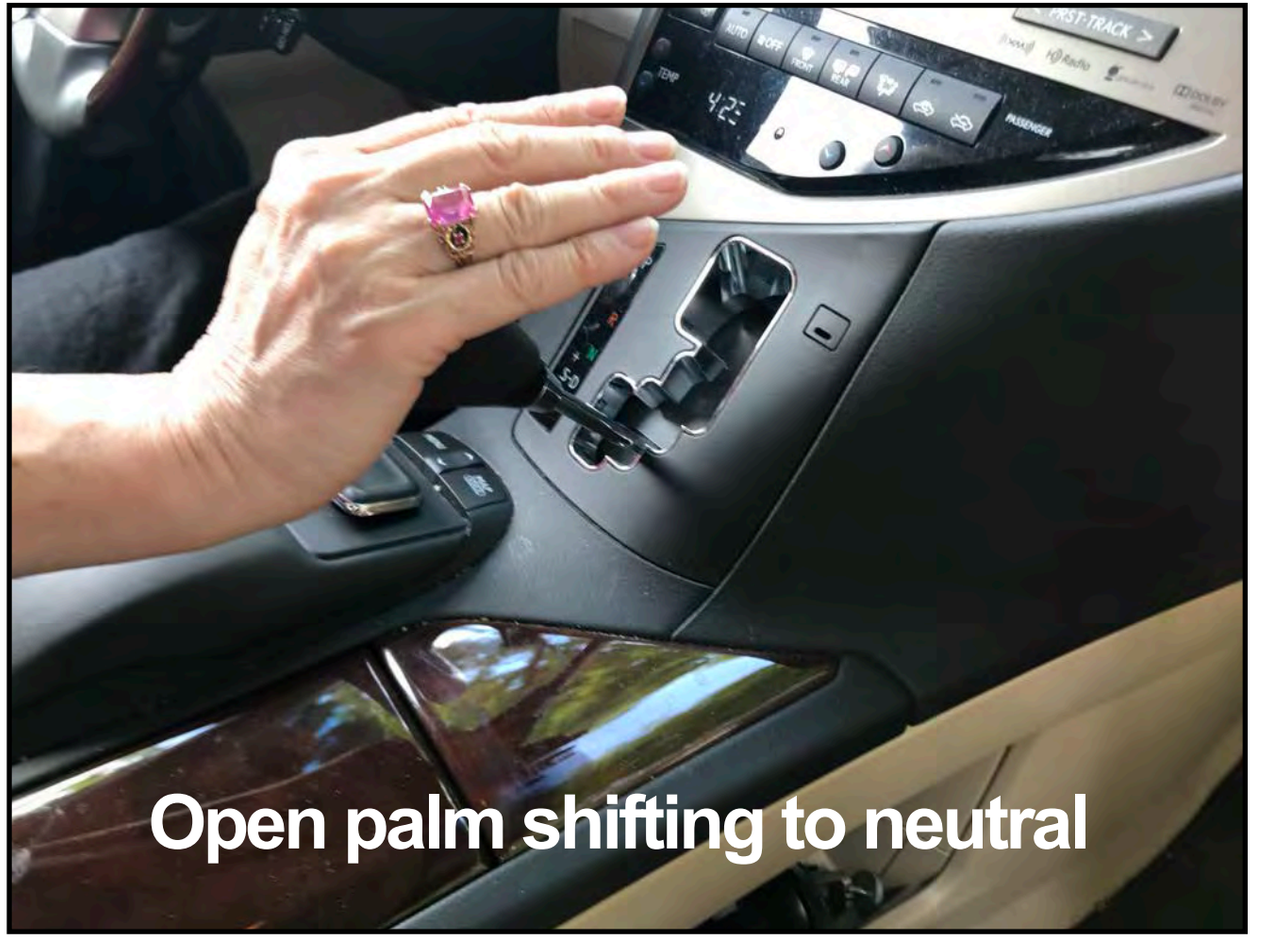
Explain and demonstrate — Once you select a location — without leaving your lane — demonstrate one step at a time as listed on Guide 32B (Coach can read each step). Repeat often. Use the “red truck” in various traffic environments. Especially perform this simulation during nighttime conditions.

Guide 33: Responding to Problems

ASK: 1. You are in the process of turning the steering wheel while making a moving turn from a secondary highway when your engine stalls. What effects will you experience and what should you do?

Response:
You will experience a power loss to the steering. Grip the steering wheel firmly and use open palm to shift the transmission into neutral, and restart the engine.

ASK: 2. You are exiting a freeway. As you begin to use the brake the pedal goes to the floor without any braking action. What should you do?



Response:
Switch your right foot onto the brake pedal and pump it up and down. At the same time place your left foot onto the parking brake pedal and (if you have a parking brake release lever) hold the parking release out. Pump the parking brake pedal to bring the car to a safe stopped position for help to arrive.

Professor Mottola's Driving MIND™ eCoach Share the Road

Zone Control Strategies for Driver Wellness

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National Institute for Driver Behavior • NIDB.org

Unit One: Power Tools to Build a House of Habits
Strategies 1 & 2

Strategies 1: Guide 01 - H01*. Establish Driver-Vehicle Readiness

S1.01 Be physically and mentally fit to drive.

S1.02 Have clean headlights and clean windshield for best sun glare and nighttime visibility.

S1.03 No drowsiness, no alcohol, no drugs, no anger, no distractions.

S1.04 Know how to detect and correct a drowsy condition.

S1.05 Approach a vehicle with awareness of surroundings.

S1.06 Look into vehicle. Control the door swing when opening.

S1.07 Butt-in seating. Seat adjustments. Head restraints to ear level.

S1.08 Windows up. Doors locked. Headlights on at all times.

S1.09 Inside Mirrors get maximum view. Outside mirrors be able to see vehicle to the rear.

S1.10 Use safety belts and require passengers to do so.

S1.11 While passengers enter and exit an idling vehicle, use “Park” position and foot on brake.

S1.12 How to give drivers positive feedback for correct actions.

S1.13 How to handle situations if you suspect the driver may be drunk.

Set 2: Guide 04 - H02. See Path Before Putting the Car in Motion

S2.01 See that the Targeting Path you intend to use is clear.

S2.02 Turn head in direction of intended movement before turning steering wheel.

S2.03 Search SAM A window to target area for “Go” or “Slow” Conditions.

S2.04 When central vision is directed away from roadway, establish open POT first.

S2.05 Detect an off-target skid condition within the first second.

S2.06 Correct an off-target skid condition within the first second.

S2.07 Effectively use Central, and Fringe vision for searching and monitoring.

S2.08 Find LOS-POT Blockages in C and B Zones.

*Guides are from: *Partnership for Expert Driving,* 8th edition, and

*H = Habits from: *Ten Habits Using the Dynamics of Zone Control,* 2nd edition

• Guides and Habits are also presented in The *Driving MIND Pocket Coach*

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Unit One • Strategies 3 & 4

Strategies for driver wellness to develop into habits!

Strategies 3: Guide 28B - H09. Get Control with a Vehicle in Front

S3.01 Be able to judge seconds of separation space.

S3.02 Keep 4-seconds separation space when traveling at same speed as vehicle ahead.

S3.03 Search beyond the vehicle ahead for slow conditions that may develop.

S3.04 Close in gradually when vehicles ahead slow.

S3.05 Stop to rear to see tires of car ahead.

S3.06 When stopped traffic ahead begins to move, evaluate their POT before moving.

S3.07 When the car in front is making a turn, increase separation to avoid zigzagging.

S3.08 Control the rear zone to manage the front zone.

Strategies 4: Guide 05 - H04. Use Reference Points

S4.01 Use Fringe Vision to maintain vehicles lane placement.

S4.02 Learn use of reference points from the co-driver seat.

S4.03 Learn side position reference points for making left or right turns.

S4.04 Learn forward position reference points for making left or right turns.

S4.05 Learn Transition peg from passenger seat for left and right turns.

S4.06 Learn reference points for Lane positions LP1, LP2, LP3.

S4.07 Move Chip car into Lane Position One.

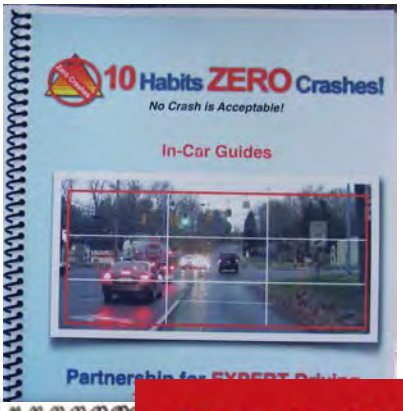
S4.08 Move Chip car into Lane Position Two.

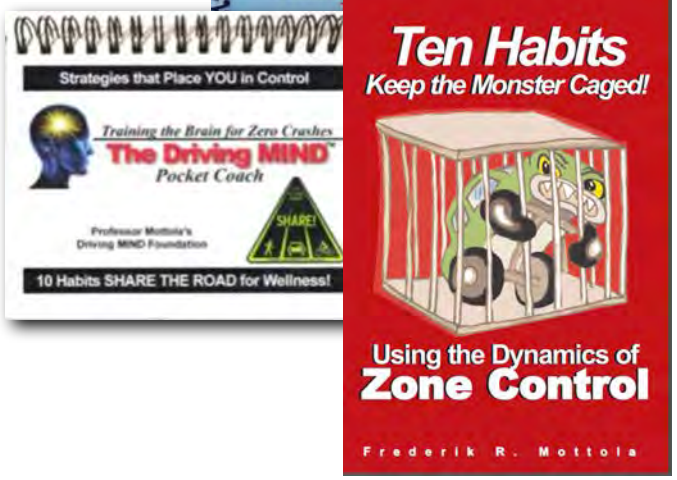
S4.09 Move Chip car into Lane Position Three.

S4.10 Learn Legal stop position at stop signs.

S4.11 Learn Safety Stop reference point.

S4.12 Learn Staggered Stop Position.





Reference:

- *Partnership for Expert Driving,* 8th edition
- *Ten Habits Using the Dynamics of Zone Control,* 2nd edition
- *The Driving MINDa Pocket Coach*

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Unit One • Strategies 5

Strategies for driver wellness to develop into habits!

Strategies 5: Guides 10, 13, 14, 28 - H05. Zone Control of LOS-POT Critical Seconds

S5.01 When a LOS-POT blockage is detected check opposite Window for options.

S5.02 When a LOS-POT blockage is detected check opposite Window for an alternate POT.

S5.03 Find LOS-POT blockages in future (A) window (target area) of Selective Attention Matrix (SAM).

S5.04 Find Critical Seconds and establish control of the 4-second danger zone before entering it.

S5.05 Find LOS-POT Critical Second

S5.06 Solve 15 seconds away

S5.07 Control 4 second Danger Zone

S5.08 Control A. B, C Windows

S5.09 Control Critical Second

S5.10 How to deal with a driver who mismanages critical seconds.

S5.11 How to handle a driver traveling at excessive speed.

S5.12 Learn and use Six Searching Locations of the Selective Attention Matrix (SAM).

S5.13 Establish best Lane Position, Speed Control, and Communications for B and C Zone conditions.

S5.14 Solve LOS-POT blockages with best speed control, lane positioning, and communication.

S5.15 When vehicle ahead is waiting to turn left, search for its opening to complete the turn.

S5.16 When you have five or more second of space, the left turner will make the turn in front of you.

S5.17 While operating within a path of travel, keep open space away from worst problem.

S5.18 Use traffic signs as cues for where to search and what to search for.

S5.19 Use LP1 and reduce speed when there are closed B and C zones.

S5.20 Use Lane Position One (LP1) with open or closed B and C zones.

S5.21 Use Lane Position Two (LP2) with open B zone and a closed C zone.

S5.22 Use Lane Position Three (LP3) with open C zone and a closed B zone.

Quizzes and Tests:

Reference: *Partnership for Expert Driving,* 8th edition

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Unit One • Strategies 6

Strategies for driver wellness to develop into habits!

Strategies 6: Guide 16 - H10. Interact Courteously with Others

S6.01 When oncoming vehicle moves into LP2 expect it may drift into your lane.

S6.02 When vehicle ahead moves into LP2 expect it to turn left.

S6.03 When vehicle ahead moves into LP3 expect it to turn right.

S6.04 Know when not to signal; such as when you don't want an approaching car to reduce speed.

S6.05 When an oncoming vehicle is waiting to turn in front of you, evaluate your rear zone.

S6.06 Empower yourself and reduce stress by seeking opportunities to be courteous to others.

S6.07 Set a goal to be courteous to at least one person each day.

S6.08 Send and receive communications in a timely and positive manner.

S6.09 Avoid waving others to "go" unless you have total and accurate information of all conditions.

S6.10 When oncoming driver is attempting to make a left turn with traffic to your rear, open your gap.

S6.11 When oncoming driver is attempting to make a left turn with no traffic to your rear, keep speed.

S6.12 Open up separation space to invite others to enter the traffic flow.

S6.13 Open up separation space to 5 or more seconds for an oncoming vehicle to turn left in front of you.

Professor Mottola's Driving MIND™ eCoach Share the Road

Unit Two:
Building the House of Habits
Strategies 7 & 8

Strategies for driver wellness to develop into habits!

Strategies 7: Guides 5, 6A, 6B - H07. Control the Danger Square - Making Turns

S7.01 Use 90º deep-search from stopped position.

S7.02 Search Left, Front, Right for gap or hole to enter.

S7.03 Turn head to evaluate POT before steering wheel is turned.

S7.04 Learn side position reference points for making left or right turns.

S7.05 Learn forward position reference points for making left or right turns.

S7.06 Learn reference points for Lane positions LP1, LP2, LP3.

S7.07 At oblique intersections for deep search, position vehicle at 90º angle to intersection.

S7.08 Use the least amount of space when making right and left turns.

S7.09 Use signal lights at least 5 seconds before turns.

Strategies 8: Guide 18 - H08. Get Rear Zone Control

S8.01 Check rearview mirror before, during, and after taking a braking action. (Use Co-driver mirror.)

S8.02 Evaluate whether the rear zone is “open,” “closed,” or “unstable.”

S8.03 With closed rear zone, evaluate tailgater type: charger, one pacer, habitual.

S8.04 With unstable rear zone tap the brake lights early before a complete stop. (to inform driver of issue)

S8.05 With unstable rear zone apply brake as early as possible to stabilize rear zone.

S8.06 When stopped in a traffic flow, continually monitor rear cars until at least two appear (“sand barrels”).

Quizzes and Test

Unit Two • Strategies 9

Strategies for driver wellness to develop into habits!

Strategies 9: Guides 17, 19, 20 - H07. Control the Critical Seconds at Danger Squares

S9.01 While approaching danger square, search to the front, and at a 45-degree to the left and right.

S9.02 Use a staggered stop position when the first car on inside lane of red light or stop sign.

S9.03 Use a staggered stop position as an implied yield sign if conditions warrant its use.

S9.04 Use a safety stop to have best searching of 90° to the left and right target areas.

S9.05 While stopped, search to the front and at a 90-degree to the left and right.

S9.06 Search for a hole or gap in the traffic flow.

S9.07 Search the intersections left, front, and right zones from best to worst LOS-POT blockage.

S9.08 Evaluate whether you are in a "Go" or a "Slow" Condition — take appropriate action.

S9.09 With a red traffic light (a "Slow" condition) avoid continuation of unnecessary acceleration.

S9.10 Time red traffic lights to become green while still five-seconds away.

S9.12 Establish control of the 4-second danger zone (B and C Zones) before entering it.

S9.13 Control 2-second point-of-no-return (PONR) before entering intersection.

S9.14 Know where the PONR is for a green light changing to yellow.

S9.15 Learn how to read accumulation of traffic at traffic actuated lights.

S9.16 When the light turns green it will take one-second per vehicle before the vehicle ahead moves.

S9.17 When you're the first vehicle at a fresh green light, search 90°-left, front, 90°-right for red-light runners.

S9.18 Four searches when stopped at green light to make left turn, evaluate: gap, path, light and rear.

A test, based on Strategies 1 to 9, can be taken at this stage to earn the Zone Control Co-Driver Diploma


CO-DRIVER DIPLOMA

This Certifies that

Jamie R. Morestone

Has successfully completed the training program requirement for

ZONE CONTROL CO-DRIVER STRATEGIES

NIDB COLLEGE

June 9, 2023
DATE

Frederik R. Mottola
PROFESSOR

Unit Two • Strategies 10

Strategies for driver wellness to develop into habits!

Strategies 10: Guide 22 - H06. Build Zone Control Actions into Habits- Precision Lane Changes

S10.01 Evaluate benefit for making the lane change.

S10.02 Search other lane's LOS-POT.

S10.03 Search outside mirror to find the gap or hole to enter.

S10.04 Use LP2 then LP3 for making a precision lane change to the left.

S10.05 Use LP3 then LP2 for making a precision lane change to the right.

S10.06 Use LP4 or LP5 to control a lane merge.

S10.07 Use LP5 to prevent a dangerous-overtaking-charger from driving into a bicyclist or jogger.

S10.08 When last car before the gap is passing you, hold signal lever in lane change position.

S10.09 Move into LP2 for left lane change, LP3 for right lane change.

S10.10 Move head 8 inches forward while viewing mirror to check blind area.

(As Co-Driver, ask driver to adjust passenger-side mirror for your use. See more info when head is moved forward.)

S10.11 Time arrival into new lane with open B and C zones when possible.

S10.12 Increase speed if necessary.

S10.13 Move into LP2 or LP3 of new lane.

S10.14 Release signal lever.

S10.15 Check rear zone for update.

S10.16 Decide on best LP for upcoming conditions.

Quizzes and Tests:

Professor Mottola's Driving MIND™ eCoach
Share the Road

Unit Three:
Living in the House of Habits
Strategies 11

Strategies for driver wellness to develop into habits!

Strategies 11: Guide 25 - H06. Turn Decisions into ZC Actions - Approaching Curves and Hills

S11.01 See curve in Target Area (SAM'S Future A Window).

S11.02 On approach to curve, check rear A zone condition.

S11.03 Get speed under control while on the straightaway.

S11.04 See at least 4-seconds of roadway into curve as measurement of speed control.

S11.05 Before entering a curve with reduced traction road conditions apply brake to test traction.

S11.06 During reduced traction conditions use "slide-space" on straightaway.

S11.07 Search into a curve to see condition of new path of travel.

S11.08 For Hills: use 100% focus to search over hill crest to see condition of new path of travel.

S11.09 Take Lane Position 2 on approach to right curve with an open B zone.

S11.10 Take Lane Position 3 on approach to left curve with an open C zone.

S11.11 Take Lane Position 1 at apex and while exiting left and right curves.

S11.12 On sharp curves, hold partial brake until at the transition peg.

Quizzes and Tests:

Unit Three • Strategies 12

Strategies for driver wellness to develop into habits!

Strategies 12: Guides 32A, 32B - H01-H10.

Being Passed

S12.01 Identify tailgater type.

S12.02 Habitual tailgater will not pass; concentrate on A Front Zone Conditions.

S12.03 Charger tailgater will make an aggressive passing maneuver.

S12.04 Evaluate Future and Present SAM Windows for where to be passed.

S12.05 Select the best location for you to be passed.

S12.06 Move into an LP that communicates to rear-driver to pass you.

S12.07 Communicate with signal light if needed.

S12.08 Reducing your speed will give you less exposure to the critical second

Passing on Secondary Roadways

S12.09 Evaluate risk versus gain.

S12.10 Evaluate traffic conditions of your POT to the target area.

S12.11 Evaluate rear zone conditions to detect a vehicle to the rear that may also be passing.

S12.12 Evaluate Future and Present SAM Windows.

S12.13 Search for LOS-POT Blockages that may prevent detection of vehicles entering your POT.

S12.14 Evaluate and be aware of rear zone conditions.

S12.15 Keep at least 3 seconds separation while waiting for a passing opportunity.

S12.16 Continue to evaluate Future and Present Windows of SAM during pass.

S12.17 Return to lane when one headlight of passed vehicle appears in the inside rearview mirror

Passing on Freeways

S12.18 Use number 1 lane for passing. When pass is complete move into another lane.

S12.19 Use timing, lane selection, and lane position to separate from traffic at merge areas

S12.20 Treat each vehicle passed as a “critical second.”

S12.21 Evaluate the vehicle’s lane position and how steady its placement has been.

S12.22 Evaluate what the gain will be by passing.

S12.23 Avoid passing when there are closed B and C zones.

S12.24 Avoid passing at merge areas.

S12.25 When passing large vehicles (LOS Blockages) make 45^{o} search for other passing vehicles.

Unit Three • Strategies 13

Strategies for driver wellness to develop into habits!

Strategies 13: Guide 34 - H01 - H10.

Freeway Driving

S13.01 Check the Rear A Zone condition.

S13.02 Keep 4-seconds separation from vehicle ahead.

S13.03 While on ramp, evaluate length of acceleration lane.

S13.04 While on ramp, evaluate Rear B or C Zones to find Gap or Hole in traffic flow.
(Co-driver may need to look out back window.)

S13.05 Travel at legal speed limit in furthest right-side lane.

S13.06 Middle lane is best to travel at the common-speed of the traffic flow unless it is more than 10 mph over the speed limit.

S13.07 The middle lane is the fast lane for trucks that are restricted from the left lane. They may tailgate.

S13.08 Select best legal lane for travel based on traffic flow.

S13.09 Evaluate LOS-POT condition of B and C Present Zones of SAM (Left and Right Zones).

S13.10 Use left lanes (lane #1) on freeways only for passing (aggressive drivers will "push" you).

Getting On the Freeway

S13.11 Note the length of the acceleration lane for best planning.

S13.12 Know whether a blind area search is needed.

S13.13 If blind search is needed, move head 8-10 inches forward while checking outside mirror.

S13.14 Keep awareness of aggressive driver in your Rear B Zone.

S13.15 With Gap or Hole located, accelerate to blend into traffic at the speed of the traffic flow.

S13.16 Enter into LP3 for right-side entrances, which provides escape path for aggressive drivers.

S13.17 Enter into LP2 for left-side entrances, which provides escape path for aggressive drivers.

S13.18 Check A Rear Zone and A Front Zone for updates.

Exiting Freeway

S13.19 Plan for exiting information in the A Zone.

S13.20 Get Rear Zone status, Communicate, Lane Change if necessary.

S13.21 Test road surface during adverse conditions by applying brake while in decelerate lane.

Quizzes and Tests

Unit Three • Strategies 14

Strategies for driver wellness to develop into habits!

Note: Sections of this Set is spread out from sets 5 to 13 in the e-Coach.

Strategies 14: Guide 36 - H01 - H10. Keep Car in Balance - Skid Prevention and Car Control

S14.01 Adverse conditions affect visibility or traction or both.

S14.02 Dirty windshield creates reduced visibility and increases the blindness caused by sun glare.

S14.03 Headlights with dirty lens reduces nighttime visibility.

S14.04 Weather conditions created by fog, rain, snow, ice, sand and dust storms.

S14.05 In all situations with reduced visibility speed reduction provides more time to process information.

S14.06 Reduced traction results when there is less tire in contact with the road surface.

S14.07 Wet roadways caused by dew, rain, snow, and ice require reduced speed.

S14.08 During heavy rain deep tire treads are required to penetrate the water to make road contact.

S14.09 Worn tires perform well on dry roads, which provides drivers with false feedback.

S14.10 Worn tires, speed, heavy rain, causes front tires to ride on the water (hydroplaning) reducing steering.

S14.11 Weight from backseat passengers can cause the front tires to lose contact with the road.

Three Stages of Skids

S14.12 There are three stages: Prevention, Detection, Correction.

S14.13 To best control a skid is to Prevent loss of tire grip to the road.

S14.14 Control of the tire grip is dependent upon four tire patches, each about the size of your hand.

S14.15 When tire grip is lost to the front tires, steering is lost and the car will slide straight ahead.

S14.16 When tire grip is lost to the rear tires, the back end creates an Off-Target condition.

S14.17 The loss of tire grip is most likely to happen by excessive speed, by braking, and steering.

S14.18 Prevention is easier than correction. Reduce speed before entering corners.

S14.19 Avoid harsh braking and steering actions.

S14.20 Detection of the loss of traction to rear tires, is made by practicing on-off target awareness.

S14.21 Correction of all skids requires foot off the brake and steer to get the car back on target.

S14.22 Secondary Skids occur when the yaw rotation is stopped and the car goes into an off-target slide.

S14.23 During the slide, the car is pointing away from the target area; the tires fully turned toward target area.

S14.24 When speed of slide is reduced, traction is regained, a very rapid movement toward the target occurs.

S14.25 Three actions must take place for correction: head to target area, detect car's movement, steer rapidly.

Quizzes and Tests:

Unit Three • Strategies 15

Strategies for driver wellness to develop into habits!

Strategies 15: Guides 11A, 16, 23, 30 - H01 - H10. Backing - Parking

S15.01 Backing requires use of all three mirrors. With back-up camera equipped vehicle, use both outside mirrors and the back up camera.

S15.02 Most essential to backing is speed should be at a creeping pace. When close to other objects, speed is at an inching pace.

S15.03 To aim the vehicle, select a targeting point and turn the steering wheel from the top down in the direction you want to go.

S15.04 Check front swing of vehicle when there is a steering action.

S15.05 Discover the “pivot point” for precision turning while backing.

S15.06 For Forward and Angle Parking view the In-car Guides for the Chip Cars that are available for step-by-step mental guidance.

S15.07 It is safer and more efficient to back into a Perpendicular Parking space than to back out..

S15.08 For Perpendicular Parking view the In-car Guides for the Chip Cars that are available for step-by-step mental guidance.

S15.09 For Parallel Parking view the In-car Guides for the Chip Cars that are available for step-by-step mental guidance.

S15.10 With practice using the Chip Cars for mental preparation you will have 100 percent success the first attempts when actual backing.

S15.11 Backing into space takes less time to park and “unpark.” Can get into and out of tighter spaces. Reduced liability if a crash occurs.

S15.12 Use inside and outside mirrors in combination with backup camera when backing and parking.

Quizzes and Tests:

Professor Mottola's Driving MIND™ eCoach Share the Road

Unit Three • Strategies 16

Strategies for driver wellness to develop into habits!

Strategies 16: Guide 31 - H01 - H10. Nighttime Driving

S16.01 Clean lights, windows, mirrors.

S16.02 Keep instrument panel lights low.

S16.03 Avoid looking at glaring oncoming lights with central vision, monitor vehicle with your fringe vision.

S16.04 Evaluate your depth perception accuracy by estimating the distance of oncoming vehicles, then count off the seconds.

S16.05 Be aware of the moon's cycle. The difference between illumination from a "full moon" as compared to a "new moon" is significant.

S16.06 Rural roadways without street lights require more concentration to search the A Zone beyond the range of your headlights.

S16.07 On rural roadways use high beams whenever there are no vehicle ahead of you, and there are no oncoming vehicles; with an oncoming car, dim high beams immediately.

S16.08 In urban areas avoid distractions created by an overload of environmental lights.

S16.09 Look for locations where pedestrians and bicyclist may be entering your POT.

S16.09 Look for cars without headlights on; most often they may come out of an illuminated parking lot.

S16.10 Communicate to oncoming vehicle with no headlights or with high beams on by one flash of your headlights from a distance.

S16.11 See curves and intersections early.

S16.12 When driving along side other vehicles, especially trucks, do not use or flash high beams.

230 Strategies can be cultivated into habit for Zero Crashes!

Coach's In-Car Guide

Skid Monster

November 2010

Ten Habits Presented in the Sets

The activities in this guide reference Ten Habits from the book Ten Habits Keep the Monster Caged: Using the Dynamics of Zone Control.

Each of the activity sets from A to X provide the trainee with opportunities to be introduced to, or to practice, one or more of the Ten Habits. The following chart shows the Sets that each Habit is presented in.

Habit	Presented In Sets
1	A,D,E,G,H,I
2	B,D,E,F,G,H,I,N,O,Q,R,V,W
3	B,D,E,F,G,H,I,N,O,P,Q,R,V
4	I,J,K,L,M,N,O,Q,R,S,U,V,W
5	K,L,O,Q,R,S,T,U,W
6	J,K,L,N,O,P,Q,R,S,T,U,W
7	B,C,D,E,J,K,L
8	J,K,L,M,S,T
9	B,D,E,T,U
10	J,K,L,M,U

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SKID Monster Driver Empowerment

National Institute for Driver Behavior
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Skid Monster Coach's In-Car Guide

Welcome to the exciting adventure of helping drivers to reduce and manage risk by the use of Skid Monster activities.

The Skid Monster gives trainees an opportunity to acquire lasting habits that can prevent, detect, manage, or correct, situations that can or does place the driver in harms way. The basis for the development of driver habit is structured in parallel with those habits presented in the book *Ten Habits Keep the Monster Caged: Using the Dynamics of Zone Control!*

The ten habits are structured into those that will help the driver to prevent risk by receiving an early detection of situations that need to be managed. This allows the driver to proactively manage risk into non-eventful situations.

In order to effectively manage risk, there must be detection of the risk. There are three stages of Detection: an Early Detection, a Late Detection and No Detection. With Early Detection, there is time to make a speed adjustment, a change in lane positioning, or send a communication to manage the risk. With Late Detection there may only be time to take a Corrective Action, which may place a high demand on the driver's car control skills. When No Detection of a problem is made, elimination of the problem is left to chance and circumstances outside the driver's control. With the Ten Habits a driver is more likely to detect a problem, and be able to do so in a timely manner.

The activities in the Skid Monster are structured to simulate situations whereby the trainee is able to learn how to acquire and value an Early Detection of a problem. The activities also develop the skills that are needed to take Corrective Actions when a Late Detection occurs.

The following pages illustrate how Risk Management requires the Ten Habits and an Early Detection.

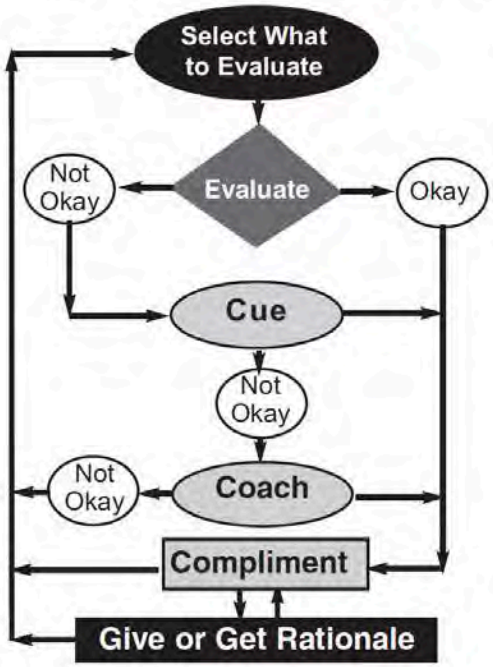
Introduction to this Guide

Every two pages contain a set of activities that have specific behavioral patterns for you to guide the trainee through. The left-hand page of each set contains preparation information for you to aid in the conducting of the activity. The right-hand page is a listing of the behavioral patterns that you will want the trainee to successfully perform. The sets are designed with a simple-to-complex structure to guide the trainee from one skill level to another. Each level builds upon the skills from previous sets.

The ECCCR Coaching Model

Your role is to provide opportunity for the trainee to perform successfully. There are three levels at which the trainee is able to successfully perform. Listed from the most effective to the least effective demonstration of the trainee's skill level they are:

1. **Evaluate** a correct performance.
2. **Cue** and get a correct performance.
3. **Coach** and get a correct performance.
4. **Compliment** after correct performance.
5. **Rationale**, Give or Get why its a good habit.



Give positive feedback for one behavior as it is successfully performed. When it is not performed, work on repeating an opportunity to "cue" for the correct performance of the same behavior. When giving "cues" is not successful, give the trainee another chance to perform the same behavior. This time you should "coach" step-by-step, if needed, until proper performance is successfully achieved. Give positive feedback even when you need to coach for success. Ask, or give, the trainee the reasons why the performance of that behavior is desirable to have as habit.

Risk Management Requires Ten Habits and Early Detection

Risk Prevention (Habits 1, 2, 3, 4, 8 and 10a)

Driver risk prevention is the formation of driving habits that will eliminate or reduce exposure to situations that have potential for causing bodily harm and will lessen the amount of destructiveness when one is exposed to such danger.

Early Detection (Habits 5, 7a,b, 9a, 10b)

Early detection is when the driver sees a change affecting the vehicle's intended path of travel at least 6 seconds ahead, which is the last opportunity to effectively manage the risk.

Risk Management (Habits 6, 7c, 9b,c)

Risk management is a proactive adjustment of speed, lane positioning and/or the sending of communications in a timely manner while control over the driver's intended path of travel is maintained without a disruption of the vehicle's balance.

Expected Outcome from Ten Habits: The driver sees an LOS-POT Zone Change that can, or does, affect the vehicle's intended path of travel. There is 10-15 seconds, or more, of time to make a slight change in motion or lane positioning. There is no surprise, no stress, and a smooth non-disruptive action is taken.

Late Detection

Late detection is seeing a potential problem when there is less than 6 seconds of time to solve the problem.

Corrective Actions

Wrong Action

A corrective action is one that is taken to get the vehicle back into the state of control, within the intended travel path, as it was prior to the need to take the corrective action.

Outcome: The driver detects an LOS-POT Zone Change when there is only five, or fewer, seconds to take a corrective action. Most often the driver has only one second to react. The correction may be a hard braking and steering evasive maneuver. Or, there may be a correction attempted for a sudden loss of traction. Without time to plan, surprised situations lead to high stress and often wrong actions.

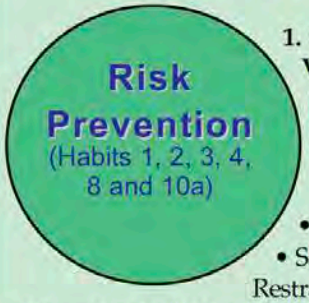
No Detection

No Action Taken

Outcome: An LOS-POT Zone Change to the vehicle's intended path of travel is not perceived by the driver. The driver takes no corrective action. The outcome is a result of chance based upon environmental conditions or the actions of others.

Applying the Ten Habits to Risk Management

Risk Prevention Habits



1. Establish Driver-Vehicle Readiness (page 4, Your Car is a Monster!)
- Driver Fitness: mental/physical
- Butt In Seating Position
- Safety Belts On, Head Restraints Up
- Doors Locked, Windows Up
- Headlights On during daytime

2. See Path Before Putting Car in Motion (page 6, Your Car is a Monster!)
- See that the Targeting Path you intend to use is clear.
- Turn head in direction of intended movement before turning steering wheel.

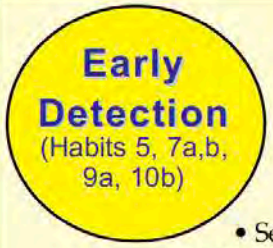
3. Keep the Car in Balance (page 11, Your Car is a Monster!)
- Make smooth and effective starts, stops, and steering actions.
- Use transition pegs for effective transfer of braking, acceleration and steering forces.

4. Use Reference Points (page 14, Your Car is a Monster!)
- Know within 3-6" where your car is positioned to the roadway.
- Know where the car's sides and front are in relation to intersections.

8. Get Rear Zone Control (page 35, Your Car is a Monster!)
- When your foot goes onto the brake, check the rearview mirror.
- Before moving to either side, check mirror and blind spot.
- When backing, check all mirrors continuously.

10. Interact Courteously With Others (page 44, Your Car is a Monster!)
- a. Empower yourself and reduce stress by being courteous, rather than competitive, while driving.

Early Detection Habits



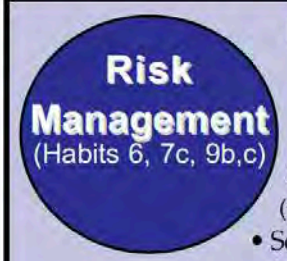
5. Do the Zone Control LOS-POT Searching Dance (page 18)
- Search to the Target Area.
- Evaluate Targeting Path for LOS-POT(Line-Of-Sight, Path-Of-Travel) blockage.
- Detect LOS-POT blockage.
- Check other related zones.
- Re-evaluate LOS-POT at 4-second danger zone.

7. Control the Intersection (page 30)
- a. Identify LOS blockage.
- b. Check for clear left, front and right zones before entering.

9. Get Control With a Vehicle in Front (page 40)
- a. When approaching a vehicle, close in gradually.

10. Interact Courteously With Others (page 44)
- b. Send and receive communications in a timely manner.

Risk Management Habits



6. Turn Decisions into Zone Control Actions (page 25)
- Solve LOS-POT blockage while 12-15 seconds away.
- Get the best: speed control, lane positioning, and communication.
- Be prepared to make adjustments when you are 4 seconds away.
- Know your Stopping Distance and your Point-Of-No-Return.

7. Control the Intersection (page 30)
- c. With a red light, or stopped traffic, reduce speed to time your arrival into an open zone.

9. Get Control With a Vehicle in Front (page 40)
- b. When traveling at same speed, keep 4 seconds following time.
- c. When stopped behind a vehicle, see its rear tires touching the road.

Safety Operation

Skid Monster Readiness:

- Check tire pressure: 60-65psi for casters, 38-40 for front tires of Skid Monster before the start of each training day.
- Remove the safety pin.
- Check security of air tank and objects in trunk, turn air valve on.
- Start each training day with at least 100 p.s.i. in the air tank.
- Have no loose object on the dashboard or on the rear window shelf.
- Clean windshield and side window before start of training.
- Keep ***Windows up*** (no guillotines), and doors locked during training.

Safe Skid Monster Operation:

- Establish that the trainee is capable of understanding and following your directions.
- **Never give directions or commands that you do not want the trainee to execute,** such as to "trick" the trainee into making a wrong response.
- Stay a minimum of 20 feet (a car length) from any object you don't want to hit
- Maximum speed is 20 mph
- **Learn how the Skid Monster is going to respond** when approaching a course boundary. For example, is the back going to spin, and in which direction? Or, is the car going to travel too wide of a path and drift beyond the course's boundary?
- **A common error by the trainee that results in the car going "too wide"** takes place when the trainee is approaching a corner too fast and doesn't want to spin the car out of control so he/she puts in too little steering making the car go too wide and off course. Do one of the following to eliminate the problem.
- **Command** the driver to "brake" if the car is going too fast into a situation where it may go dangerously off course. Let the trainee know that you commanded the use of brake because speed was too fast to stay on course.
- **Emergency Stop** of the Skid Monster can be made **by you shifting the car into neutral** and pulling down on the steering wheel to spin it out, while at the same time **commanding the driver to "brake".**
- You should be capable of **steering the car in the Monster mode** from the instructor's seat.

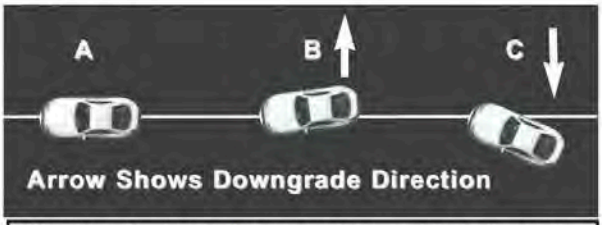
Skid Monster Performance

Skid Monster's Design

The Skid Monster is designed to give drivers an opportunity to experience the consequences of losing control of the car, and to develop into habit the behaviors necessary to prevent, or correct, situations where the car gets out of control and turns into a "monster". As the coach, you have choices. The car can be operated with the rear wheels in the non-monster mode, which means the rear wheels are not able to caster; or, you can filp a switch to the "monster mode" to have the rear wheels caster .

The Monster Mode

When the wheels are in the "monster mode"(able to caster) the effect upon the car is chiefly dictated by four elements: 1. The speed of the car. 2. Turning of the steering wheel. 3. Braking actions. 4. And, by the upgrade or downgrade slope of the course. An excessive speed (there is never a need to go more than 20 m.p.h. to have effective training take place) coupled together with an incorrectly timed acceleration or braking action, or combined with a steering response that is too late, too early, not enough or too much, will cause the rear of the car to spin out of control. Correct usage of acceleration, braking, and steering is dependent upon visual inputs, which are experienced throughout the activity sets of this guide.



Situation A, shows the car on target while in the non-monster mode. Notice the effect the downgrade of the course has upon the "skid" when the switch is made to the "monster mode" in B and C. **Situation B** shows an "early detection" of the car "off target", which can be corrected by a small steering input to the right. **Situation C** shows a "late detection", which will require a very fast and full steering input to the left. Vision dictates where to steer and how fast to do it. Seeing the front of the car quickly moving off-target tells the driver to quickly turn the steering wheel to get back on target.

When to Go and When to Slow

If the car is in a "go" situation, one that does not require the car to stop, such as coming out of a turn, timely acceleration can sometimes assist the steering effort to get the car back on target. If there is a "slow" situation, one that requires a braking action or a reduction of speed, then the option to use the accelerator is not available. As a general rule, "if in doubt, leave the pedals out"— no braking, no acceleration. Vision will tell you what's correct.

Objective

During this set the trainee will demonstrate rules to follow for safe operation of the Skid Monster. The trainee will also experience the ***key behavioral patterns*** that appear in ***bold italics*** under each activity. All drivers should demonstrate successful performance of this set's key behaviors before going on to the next set.

Course Set-up

No set-up is required for this set.

Directions

Before driving, review the safe operating procedure and vehicle readiness with the trainee.

Evaluation

The trainee should have received information prior to attending the in-car session. You should ask the trainee to explain or demonstrate the ***key behavioral patterns*** meanings and applications.

Coaching Tips

There are several levels of coach-trainee interactions that can take place. Some are more educationally effective for the development of lifelong habits than others. You can:

1. Tell the trainee what to do
2. Ask trainee to demonstrate correct performance
3. Ask trainees to explain reasons for performing a behavior correctly

The least effective level is number 1, to tell the trainee what to do. The most effective is to have the trainee demonstrate correctly and be able to explain why it is beneficial to perform correctly.

At all times observe the correct performance of the **key behavioral patterns.** When the trainee performs correctly, give him/her positive feedback of the specific behavior. When the trainee does not perform correctly, coach him/her to do so, then give positive feedback after successful performance.

If you have more than one trainee in the Skid Monster you need not go over all items with each trainee. You can, however, ask trainees in the backseat to answer questions from this set. You should evaluate each driver by the behaviors of "Driver Readiness" before he/she drives.

Safe Skid Monster Operation:

- Trainee is able to understand and follow directions and commands
- Stay a minimum of 20 feet (a car length) from any object you don't want to hit
- Maximum speed is 20 mph

Vehicle Readiness:

- Check tire pressure at least once a month *(Skid Monster tires are checked, by the Coach, each day before training begins)*
- Check security of objects inside passenger compartment and in trunk
- Check operation of all equipment, instruments, and lights on a regular basis
- Check for clean windshield before driving
- ***Windows up*** (no guillotines), doors locked

Driver Readiness:

- ***Butt-in*** seating position (slide butt all the way back)
- ***Seat adjustment***: height, distance (wrist even with top of steering wheel)
- ***Safety belts on*** all occupants
- ***Heel of right foot in alignment with brake pedal***, ball of foot on brake
- Be able to ***pivot foot from brake to accelerator*** without lifting heel
- ***Balanced hand position*** on steering wheel; 9-3 preferred

Habits Introduced in this Set

Habit 1. Establish Driver-Vehicle Readiness

B Vision & Motion Control

Objective

This set is the beginning of efficient use of vision for targeting to achieve motion control. With motion control efficient use of acceleration, braking and steering actions keep the pitch, roll and yaw forces of the car in balance. Also, use of the tire concept is introduced.

Course Set-up

See the Exercise Set-Up section of this book for complete information.

Directions

Begin each run in non-monster mode, then switch to the MONSTER mode during acceleration. Have the trainee go from one target to the other. Have them make a complete stop before they get any closer to the POT cone A or B than where they can still see the base of it. Make the comparison to seeing the base of the POT cone to that of seeing the rear tires of a stopped car.

Say to the Trainee:

- Our objective is to drive from one target to the other. The cones are POT (Path-Of-Travel) Blockages en route to the target. The target is whatever is aligned in the distance with the POT blockage (cone). Once we begin to turn around POT A, our goal is then to drive to a target aligned with POT B. We will be repeating this process going from one target to another.
- We will be seeing the target with our central vision and seeing the POT cone with our fringe vision.
- Accelerate to 15 m.p.h. for the target beyond POT A and then slam on the brake and make a smooth stop (release slight pedal pressure during last two seconds of braking) while keeping the car on target.
- Have the stops made where the base of POT A or B is just in view with no part of the parking lot seen.
- To turn the vehicle around, use fringe vision to keep close to the POT cone while using central vision to look for a new target.

Evaluation and Coaching

Observe whether the trainee performs the **key behavioral patterns** that are listed on the page to the right. You may only be able to observe two or three of the behaviors each time an approach to the POT cone is performed. You must know ahead of time which behaviors you are going to observe. If the trainee performs correctly say, "I liked the way you ...". If incorrect performance is evaluated, then have the trainee repeat the exercise and coach him/her for successful performance, then give positive feedback.

Habits Introduced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 3a. Keep the Car in Balance
Habit 7. Control the Intersection
Habit 9c. When Stopped, See Rear Tires

Direct Vision to Target

- ***Checks the left, front and right zones before moving***
- ***Turns head on target before turning steering wheel***
- ***Positions Car on Target***, avoids over correction of steering
- ***Uses Central and Fringe Vision*** (see target with central vision, see car to POT Cone and to target with fringe vision)

Steering Techniques:

- Uses a ***balanced hand position*** on the steering wheel
- Uses the ***Hand-Over-Hand*** or ***Pull-Push*** method effectively
- ***Knuckles and thumbs on outside*** when holding and turning wheel

Acceleration Techniques:

Cycle the **Skid Mode** on and off randomly

- ***Sees open space before accelerating***
- ***Sets Car into motion smoothly*** (idle speed, then accelerate gradually)

Braking Techniques:

For some of the target approaches ask the trainee to accelerate rapidly and smoothly to 15 m.p.h. then direct him/her to SLAM on the brakes and make a fast smooth stop.

- Applies the ***brake with the right foot*** (unless physically restricted)
- Uses ***controlled threshold braking*** efficiently without locking the wheels
- Brings the vehicle to a ***smooth stop***.
- Stop to see the base of the POT cone to represent the ***tire concept*** before steering around it to the other target.

C Transition Pegs Intro

C

Objective

This set adds the introduction of the use of transition pegs for effective acceleration and braking to keep the forces of the car in balance.

Course Set-up

Use the same set-up as that used for B set.

Directions

- This is similar to Set B except you will not have the trainee make a complete stop before turning around the barrier to head back to the other target. Begin each run in non-monster mode, then switch to the MONSTER mode during acceleration.
- To introduce the trainee to transition pegs when the car is on the backside of the barrier have the trainee stop the car when it is at the transition peg so they can clearly know how the transition peg is viewed in relation to the target.
- Do the transition pegs for left and right turns.
- Remember you can see your transition peg as a coach that is the mirror image of what the driver sees.
- For you as a coach, you see the left-turn transition peg when the rearview mirror is aligned with the target, and the right-turn transition peg when the passenger-side windshield corner post is aligned with the target.

Evaluation and Coaching

- Observe the head movement of the trainee while turning the car from one target to the other. When properly performed give the trainee positive feedback. When not, coach for a correct response.
- Be prepared for the trainee to make the common error of releasing brake pressure before the car is at the transition peg.
- When speed is slow enough during the turnaround that braking in not needed, the trainee should increase acceleration when the car is at the transition peg. A common error occurs when there is a premature increase in acceleration before the car reaches the transition peg.
- Keep in mind that these are new behavioral patterns for most drivers. You will get the best results if you cue the driver by saying "hold the brake, hold the brake" and then say "accelerate"when you see the transition peg.

Habits Introduced in this Set

Habit 3b. Keeps the Car In Balance
• Use Transition Pegs

C

Direct Vision to Target

- ***Checks the left, front and right zones before moving***
- ***Turns head on target before turning steering wheel***
- ***Positions Car on Target***, avoids over correction of steering
- ***Uses Central and Fringe Vision*** (see target with central vision, see car to target with fringe vision)

Steering Techniques:

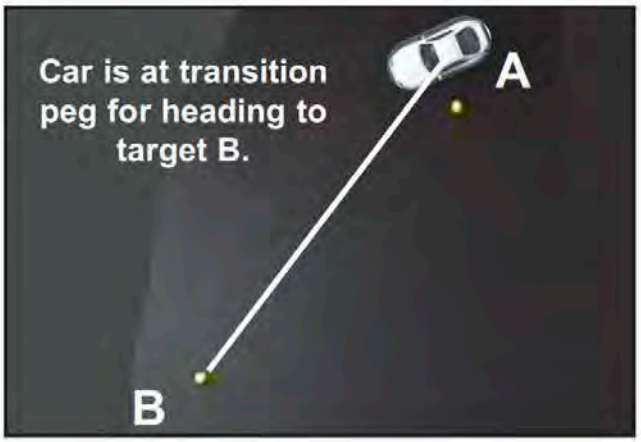
- Uses a ***balanced hand position*** on the steering wheel
- Uses the ***Hand-Over-Hand*** or ***Pull-Push*** method effectively
- ***Knuckles and thumbs on outside*** when holding and turning wheel

Acceleration Techniques:

- Explain and show that the driver's windshield post (A pillar) when lined up with the target is the transition peg for a left turn. The rearview mirror is the transition peg for right turns.
  - ***Sees open space before accelerating***
  - ***Sets Car into motion smoothly*** (idle speed, then accelerate gradually)
  - ***Increases acceleration at transition peg*** while focusing on the target.

Braking Techniques:

- Applies the ***brake with the right foot*** (unless physically restricted)
- Uses ***controlled threshold braking*** efficiently without locking the wheels
- Brings the vehicle to a ***smooth stop***.
- Holds partial braking until at the ***Transition Peg*** then go from braking to acceleration without delay.



D Targeting Practice-1

Objective

This set provides practice in the use of targeting and the efficient use of vision, motion control (acceleration and braking) and steering control to keep the car in balance.

D

Course Set-up

No cones are needed, nor used. Use targets that appear around the perimeter of the parking lot. Even targets that are in the distance, such as: a church steeple, a billboard, a part of a building, can be used.

Directions

Say to the Trainee:

- Find the "pole "target and then get on target.
- Accelerate to 15 m.p.h. then slam on the brake and make a smooth stop while keeping the car on target.
- Turn the vehicle around to "tree" target 180 degrees in the opposite direction.

Evaluation

You should ask the trainee to perform a maneuver such as the commands listed above under "Directions" without any cuing or coaching. Observe whether the trainee performs the **key behavioral patterns**. You may only be able to observe two or three of the behaviors each time a maneuver is performed. You must know ahead of time which behaviors you are going to observe. If the trainee performs correctly say, "I liked the way you ...". If incorrect performance is evaluated, then have the trainee repeat the exercise and coach him/her for successful performance, then give positive feedback.

Coaching Tips

- **Begin** to establish names for various targets around the perimeter of the training area. For example, "Target the pole"... "Target the tree"... "Target the building"... "Target the bush". (A large object may require targeting a part of it, like the corner of the building). Keep consistent names for the targets. These target names will come in handy as training progresses.
- If the parking lot has a camber, the back of the car will tend to move in the downside direction. Coach the trainee to immediately correct the sliding action to get the car moving towards the target. The longer the "off-target" condition takes place, the greater the "yaw" angle becomes which requires more turning of the steering wheel for a corrective action.

Target Selection:

Select and identify one target for the trainee, then turn the car 180 degrees and identify another target. Begin each run in non-monster mode, then put switch to the MONSTER mode during acceleration.

D

- ***Checks the left, front and right zones before moving***
- ***Turns head on target before turning steering wheel***
- ***Positions Car on Target***, avoids over correction of steering
- ***Uses Central and Fringe Vision*** (see target with central vision, see car to target with fringe vision)

Steering Techniques:

- Uses a ***balanced hand position*** on the steering wheel
- Uses the ***Hand-Over-Hand*** or ***Pull-Push*** method effectively
- ***Knuckles and thumbs on outside*** when holding and turning wheel

Acceleration Techniques:

Cycle the **Skid Mode** on and off randomly

- ***Sees open space before accelerating***
- ***Sets Car into motion smoothly*** (idle speed, then accelerate gradually)
- Uses ***transition pegs*** effectively

Braking Techniques:

- Applies the ***brake with the right foot*** (unless physically restricted)
- Uses ***controlled threshold braking*** efficiently without locking the wheels
- Holds the brake until at the ***transition peg*** for turns made without stopping.
- Brings the vehicle to a ***smooth stop***. (Release slight pedal pressure by pulling toes slightly off the brake during last two seconds of braking to gradually ease the pitch force).

Habits Practiced in this Set

Habit 1. Establish Driver-Vehicle Readiness
Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 7. Control the Intersection
Habit 9c. When Stopped, See Rear Tires

E Targeting Practice-2

Objective

This set gives the trainee practice time to build upon the skills that were introduced and experienced in sets A -D.

Course Set-up

No cones are needed, nor used. Use the same targets that were used in set "D". You can randomly select new targets around the perimeter that the trainee is to search for and drive to.

Directions

- Have trainees make turns from a stopped position by selecting a target before the turn is made.
- Then have trainees make turns to other targets without making a full stop by holding partial brake pressure until at the transition peg.

Evaluation

- If you have a student eye monitor mirror, use it to view where the student's head and eyes are directed before, during and after the turn is made.
- Otherwise, you can adjust the inside mirror for viewing the student during this stage of training.

Coaching Tips

- Eyes and head should be directed towards the target before a steering action is taken.
- Give trainees an opportunity to perform while you observe one or two key behavioral patterns.
- When you observe correct behavior give positive feedback such as, "turning your head on target was good".
- When you observe incorrect behavior, set up the same opportunity, but this time cue the student for the correct response such as, "turn your head to the target before you begin to steer".

Habits Practiced in this Set

Habit 1. Establish Driver-Vehicle Readiness
Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 7. Control the Intersection
Habit 9c. When Stopped, See Rear Tires

Targeting From Stopped and Moving Positions – 180 degree turns:

- ***Searches left, front and right*** zones before moving
- ***Smooth Acceleration*** on Starts: no pitch forces felt
- On Moving Turns: ***Applies brake effectively before steering***
- ***Turns Head On Target*** before turning steering wheel
- ***Detects and Corrects Skid yaw*** immediately
- ***Off pedals during skid*** (no gas, no brake)
- ***Keeps head turned towards target*** during skid recovery
- ***Steering recovery*** initiated at ***Transition Peg*** (corner post for left turns, rear view mirror for right turns)
- On stops: ***Smooth Braking***, no pitch forces felt

Braking Techniques

- Applies the ***brake with the right foot*** (unless physically restricted)
- Uses ***controlled threshold braking*** efficiently without locking the wheels
- On Moving Turns: ***Keeps Partial Braking Pressure*** until ***Transition Peg***
- Brings the vehicle to a ***smooth stop***. (Release slight pedal pressure by pulling toes slightly off the brake during last two seconds of braking to gradually ease the pitch force).

The car is on target for the stop sign.

F Demo of Transition Pegs and Vision for Turns

Objective

This activity demonstrates how important timing of brake release and initiation of acceleration is while making a moving turn. When the brake is released too soon, or when acceleration takes place too soon, the car gets out of balance and can become uncontrollable. With effective timing of brake release and acceleration positive energy is applied. Hold partial brake until at the transition peg. To release the brake before the transition peg will add more energy to the vehicle's inertia making it more difficult to turn. Once beyond the transition peg (more than halfway into turn) the brake can be released and acceleration should take place without delay.

F

Directions

- This activity is explained as it would be used to demonstrate to a group. You (the Skid Monster Coach) will drive the car and perform the activity as noted on the following page.
- It is important that each of the three demonstrations be performed in the same manner to make the concepts easily understood by the audience. For example, in the second demonstration if you accelerate very slowly the audience may think that the vehicle failed to spin out because you did not accelerate rapidly, rather than conveying the fact that acceleration took place at the incorrect moment.

NOTE: This activity could also be incorporated as part of Skid Monster training with a trainee after he/she has demonstrated successful and consistent use of transition pegs for making turns. The activity will essentially be the same except that the trainee will be driving.

Evaluation and Coaching Tips

- When having trainees do this demonstration you will need to evaluate, and be prepared to coach, the trainee to stay focused on the target and not to give heavy acceleration until at the transition peg.
- If you are demonstrating to an outside group roll down your window to explain what you are doing before each demo. Get their reaction after each demo. Ask two of them to be inside the car as passengers. However, they should first be aware of the potential of the back of the car to spin.

Habits Demonstrated

Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance

Demo of Transition Pegs and Vision for Turns F

Safe Skid Monster Operation:

Choose an open area. Keep outside observers a safe distance from where you will perform the demonstration.

Demonstrations: Value of Transition Pegs into Turns

1. Place Skid Monster in non-MONSTER mode.

First Demo: ***Wrong behavior with no consequence = positive feedback for negative behavior***

- Select a target 90 degrees to the left.
- Rapidly accelerate while turning the steering wheel.
- Ask: "How did you feel the car handled?"

You may get answers such as: "It felt pretty good", "It felt a little funny" or "It handled fine".

NOTE: the car should handle pretty well because it was *not* in the "Skid Mode".

2. Place Skid Monster in MONSTER mode.

Second Demo: ***Wrong behavior with consequence = negative feedback for negative behavior***

- Select a target 90 degrees to the left.
- Rapidly accelerate while turning the steering wheel. (the car will spin out)
- Ask: How did you feel the car handled?

Make the point that vision was incorrectly used and acceleration was applied too early in both cases. However, this time with the car in the monster mode it was like hitting a patch of sand or an oil slick. It was just that one additional risk factor that caused the car to go out of control when wrong behavior was used.

3. Place Skid Monster in MONSTER mode.

Third Demo: ***Correct behavior no consequence = positive feedback for positive behavior***

Explain that this time you will correctly use vision to see a transition peg to determine the moment to accelerate. Make the same turn.

- Explain and show that the driver's windshield post (A pillar) when lined up with the target is the transition peg for a left turn.
- Select a target 90 degrees to the left - Use slightly more than idle speed to move the car into the left turn.
- At the ***Transition Peg***, accelerate rapidly while focusing on the target.
- The car was in the Skid (monster) mode. Explain to the group how the car remains in control when vision is used properly to determine when to accelerate.

G Simulated Late Exiting

Objective

This exercise simulates the driver being on a limited access highway when suddenly a passenger says, "Here's our exit, TAKE IT". The car very quickly gets out of balance and frequently out of control. The trainee experiences the relationship of how excessive speed and excessive steering executed during a surprise situation results in the car going out of control.

Course Set-up

No cones are used. Targets on the perimeter of the parking lot , as those previously identified, will be used.

Directions

- While the car is straight and on target, switch to the Monster mode. Observe at this time how quickly the trainee corrects for the yaw when the switch to Monster mode is made.
- With the car's speed at 15 mph, **tell the trainee, in a voice expressing urgency, "TURN RIGHT (or left) FOR THE .....!"** The target you select should require at least a 90-degree movement of the car.
- If the driver does all the correct actions of reducing speed before steering, give positive feedback. Then you may want to set-up a demonstration by telling him/her that you want them to make a fast, hard cut to the new target to see what happens when such actions are taken.00
- Make the analogy that many drivers, rather than miss their exit on a highway, will make the mistake of attempting a hard braking and steering action to exit at which time the car turns into a monster.
- **Give the trainee quick changes from one target to another** to experience how speed and large steering inputs affects car control.

Evaluation

- Observe whether the trainee applies the brake to get a speed reduction, and holds the brake before taking a steering action.
- The common error is the trainee will turn the steering wheel in response to the urgency of your voice.
- You want the trainee to see the effects that speed and a late decision has upon causing the skid and reducing the opportunity for a successful skid recovery.

Simulated Late Exiting:

Continue to use the same targets previously selected. Direct students to get on target and then in a voice with a quick, urgent tone, say, **"TURN RIGHT FOR THE .....!"** The target you select should require at least a 90-degree movement of the car.

Observe these Behaviors first

- Applies brake and ***reduces speed before steering to new target***
- ***Turns Head On Target*** before turning steering wheel

Behaviors to Maintain Control

- ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
- ***Keeps head turned towards target*** during skid recovery
- On Moving Turns: ***Keeps Partial Braking Pressure*** until ***transition peg***
- ***Steering recovery*** initiated at ***Transition Peg*** to avoid corrective steering
- ***Smooth Acceleration*** on Starts: no pitch forces felt
- On stops: ***Smooth Braking***, no pitch forces felt

Habits Practiced in this Set

Habit 1. Establish Driver-Vehicle Readiness
Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance

H You Put Car Off Target

Objective

This exercise, which has two parts, simulates the car going off target into a rear wheel skid. First, it gives the trainee an opportunity to detect the beginning of a skid and to make timely and appropriate corrections. Second, it lets the trainee experience the relationship of how excessive speed and excessive steering reduces the opportunity to correct a skid. This exercise also provides skills that will be needed to perform successful evasive steering maneuvers.

Course Set-up

Targets on the perimeter of the parking lot will be used.

H

Directions

First Part: • Direct the trainee to various targets with the Monster mode in the off position.

- While the car is straight and on target, switch to the Monster mode. Observe at this time how quickly the trainee corrects for the yaw when the switch to Monster mode is made.

Second Part: • After the trainee demonstrates proficiency in detecting and correcting skids do this part.

- Begin with the switch in the Monster mode and the car on target.
- You will tell the trainee that you are going to move the car off target. **You can move the car off target to the left (or to the right) as far as the transition peg.**
- **Place your left hand on the steering wheel** at the three position. You can then move the steering wheel up or down to get the car off target.
- Begin with small, slow movements off target, then as success is achieved, increase the angle off target and the quickness of your movement of the steering wheel.
- Have the trainee see how far off target corrections can be made at given speeds.

Evaluation

- During this activity always observe that the trainee keeps his/her head and eyes on target while you are causing the car to go off-target.
- You want the trainee to take his/her foot off the accele rator or brake pedal as soon as they see the car begin to move off target. (You can keep your hand on the wheel in the 3 o'clock position for a few seconds without moving the wheel to be certain the trainee is reacting to the car's movement off target, rather than to the movement of your hand on the wheel).
- As soon as you move the car off target, take your hand away from the steering wheel and observe how effectively the trainee is using eyes, head, and steering movements.

You Put Car Off Target H

On Target/Off Target:

- Direct the trainee to get on target. Tell the trainee, "I am going to move the car off target. The more off target I move the car the quicker your actions to correct it must be".

- Begin with a speed of 10 m.p.h. and slight movement of the steering wheel off target. As success is achieved you can have the trainee bring the speed up to a maximum of 15 m.p.h. You can defect the steering wheel off target as far as slightly beyond the transition peg.
  - See that trainee's foot comes off the pedals as you move the ***steering wheel off target***
  - **Trainee *Keeps Head On Target*** as steering wheel moves car off target
  - ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
  - ***Keeps head turned towards target*** during skid recovery

- After recovery, as trainee is Making a Turn for the New Target:
  - ***Keeps Partial Braking Pressure*** until ***transition peg***
  - ***Steering recovery*** initiated at ***Transition Peg*** to avoid corrective steering
  - ***Smooth Acceleration*** on Starts: no pitch forces felt
  - On stops: ***Smooth Braking***, no pitch forces felt

H

The stop sign is the target. The car is off target. Steer to the right to get back on target.

Habits Practiced in this Set

Habit 1. Establish Driver-Vehicle Readiness
Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance

I Trainee Gets On/Off Target

Objective

This exercise lets the trainee experience the relationship between excessive speed and excessive steering and the opportunity a driver has to correct a skid. This exercise also provides skills that will be needed to perform successful evasive steering maneuvers.

Course Set-up

Targets on the perimeter of the parking lot will be used.

Directions

- Direct the trainee to various targets with the Monster mode in the off position.
- While the car is straight and on target, switch to the Monster mode. Observe how quickly the trainee corrects for the yaw when the switch to Monster mode is made.
- With the switch in the Monster mode and the car on target tell the trainee to move the car off target.
- Have them begin with small, slow, movements off target. As success is achieved, have them increase the angle off target and the quickness of their movement of the steering wheel.
- Have the trainee see how far off target corrections can be made at given speeds.

Evaluation

- During this activity always observe that the trainee keeps his/her head and eyes on target while getting the car off-target.
- Start by having the trainee make small movements off target. And, eventually have them move the car off target until the transitions pegs go past the target.
- The more movement off target, the faster and greater the steering action must be to get back on target.
- Trainees will either not turn enough off target to get a skidding action, or they will delay taking a corrective steering action which results in failure.
- You want the trainee to move the car off target rapidly and make corrections rapidly until they can clearly see the effect that speed and a late detection has upon skid recovery.

Trainee Gets On/Off Target I

On Target/Off Target:

- Direct the trainee to get on target. With the car on target, tell the trainee, "Move the car off target. The more off target the car is moved, the quicker your actions to correct it must be".

- Begin with a speed of 10 m.p.h. As success is achieved you can have the trainee bring the speed up to a maximum of 15 m.p.h. The steering wheel can be moved off target as far as slightly beyond the transition peg.
  - Foot off pedals to reduce speed before ***steering off target***
  - ***Keeps Head On Target*** before turning steering wheel off target
  - ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
  - ***Keeps head turned towards target*** during skid recovery

- After recovery, as trainee is the Making Turn for a New Target:
  - ***Keeps Partial Braking Pressure*** until ***transition peg***
  - ***Steering recovery*** initiated at ***Transition Peg*** to avoid corrective steering
  - ***Smooth Acceleration*** on Starts: no pitch forces felt
  - On stops: ***Smooth Braking***, no pitch forces felt

Habits Practiced in this Set

Habit 1. Establish Driver-Vehicle Readiness
Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance

Turns from a Stop J

Left and Right Turns–Stopped Position

Go around the course once in the non-monster mode to identify targets. **Then mix up the turns, some in MONSTER mode, others not.** Point out to trainees the effects the parking lot camber has upon making right turns as compared to the left turns.

Making the STOP

- ***Signals for turn 5 seconds*** before stop
- Uses side position ***reference point***
- Begins ***braking effectively*** on approach
- ***Check rearview mirror*** when foot goes on brake
- ***Makes smooth stop***
- Uses ***reference points*** for stop position

Making the TURN

- Uses forward position ***reference point***
- Selects ***Target before beginning turn***
- ***Searches intersection*** for clear left, front, right zones
- ***Turns head*** onto target ***before accelerating***
- ***Checks Outside Mirror***
- See cones with ***peripheral vision***
- ***Accelerates*** at ***Transition Pegs***
- Uses ***effective steering*** technique
- ***Detects and correct skid yaw*** (off pedals during skid)
- ***Timely Acceleration*** to 15 mph when space permits

Habits Introduced in this Set

Habit 4. Use Reference Points
Habit 5. Do Zone Control LOS-POT Search Dance
Habit 6. Turn Decisions into Zone Control Actions
Habit 7. Control the Intersection
Habit 8. Get Rear Zone Control
Habit 10b. Interact Courteously With Others

Turns While Moving K

Left and Right Turns–Moving Position:

Approach some turns in the MONSTER mode, others not. First activate the MONSTER mode only while approaching the turns. After trainee demonstrates competency, you can also activate the MONSTER mode during the turn. You can treat this corner as a TURN is bing made at a tee intersection (signal lights should be used) or as a 90 degree CURVE in the road (no use of signal lights).

Approaching the CORNER

- ***Signals 5 seconds*** before turn (not curve)
- Uses ***Target Area Searching*** on the approach
- Begins ***constant braking*** during approach
- Gets ***side positioning***
- ***Check rearview mirror*** when foot goes on brake
- ***Brake controls speed before turning*** (Use of brake to reduce speed before turning prevents skid. Stay off brake during skid.)

Entering the CORNER

- Uses ***forward position*** reference point
- ***Searches intersection*** for clear left, front, right zones
- ***Turns head*** to new target area ***before steering***
- ***Checks Outside Mirror***
- ***Holds partial braking*** (at least 30%) ***until Transition Peg***
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- Uses ***effective steering*** technique
- ***At Transition Peg***, effectively ***accelerates w/o hesitation*** to straighten the car on target. (This action can be used to demonstrate the use of "throttle"to "pull" the car out of a rear wheel loss of traction, which can be of value in limited applications.

Habits Practiced in this Set

Habit 4. Use Reference Points
Habit 5. Do Zone Control LOS-POT Search Dance
Habit 6. Turn Decisions into Zone Control Actions
Habit 7. Control the Intersection
Habit 8. Get Rear Zone Control
Habit 10b. Interact Courteously With Others

L Turns Demonstration

Objective

This set gives the trainee opportunity to see the effects that proper or improper use of the brakes has upon car control while making turns. Also, trainees are able to experience the effects 2 additional miles per hour of speed has upon car control.

Course Set-up

Use the same set-up as that of set "J" with cones defining four corners.

Directions

- **Premature release of brake demo:** Explain that most drivers make the mistake of releasing the brake before the car is at the transition peg. To show the consequences you are having the trainee intentionally make the error of releasing the brake just before steering begins.
- **Demonstrate no use of brakes:** tell the trainees to travel around the four corner exercise by controlling speed only with the accelerator. They cannot use the brake. Trainees will be able to experience how you cannot go fast into turns without losing control. Braking is very valuable to speed control.
- **Increase speed by 2mph:** allow the trainee to use the brake in a normal manner. Have the trainee start to turn the steering wheel into a left turn at 10 mph. You view the speedometer to say what the speed is. Then go into the remaining turns also at 10 mph. Take note of the effects that the camber of the parking lot has upon control into each turn. Continue to increase the speed by 2 mph increments for each turn until the trainee is not able to maintain control of the car.

Evaluation

These exercises gives you an opportunity to evaluate the autonomous targeting and skid recovery corrections skills that a trainee has. While emphasis is placed upon performing the demonstration, the trainee is less likely to concentrate on the key behaviors, which makes it easy for you to evaluate all the key behaviors to see if they are being performed.

Coaching Tips

Pay attention to how the trainee turns his/her head on target, makes an early detection of the skid and initiates a corrective action without delay.

Demonstration of Premature Release of Brake for right or left turns:

Have trainee take his/her foot off the brake prematurely while making a turn to experience the negative consequences.

Demonstration of No Use of Brake while making right or left turns:

Have trainee travel around the course a few times without being allowed to use the brake pedal. This is a demonstration of how important correct braking is before and during turns.

Right and Left Turns Compare Speed of Success and Failure Approaches:

Allow trainee to resume use of brake as needed. Mix up the MONSTER and non-monster mode. **Have the trainee start at an approach speed of about 10 mph (the speed when steering begins). Then increase successive approaches by 2 mph increments.** Have trainee compare the difference 2 mph faster approach has upon control.

- Uses ***Target Area Searching*** when approaching the turn.
- ***Applies brake before turning*** (On brake to prevent skid, off brake during skid)
- ***Check rearview mirror*** when foot goes on brake
- ***Searches intersection*** for clear left, front, right zones
- ***Turns head*** to new target area ***before steering***
- ***Holds partial braking*** (at least 30%) ***until Transition Peg***
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- Uses ***effective steering*** technique
- Uses ***acceleration effectively without hesitation*** after the halfway point when car is in control

Habits to Demo in this Set

Habit 4. Use Reference Points
Habit 5. Do Zone Control LOS-POT Search Dance
Habit 6. Turn Decisions into Zone Control Actions
Habit 7. Control the Intersection
Habit 8. Get Rear Zone Control
Habit 10b. Interact Courteously With Others

M Lane Positions

Objective

This lesson will give the trainee an opportunity to learn and practice the use of lane positions one, two and three. Lane positions 1, 2 and 3 are the most frequently used positions. You can, after evasive maneuver activities have been completed—and if time and circumstances permit—introduce lane positions four and five using this same set-up.

Course Set-up

Make an 18 foot wide lane. See the Set-up section for more information. The reason an 18 foot wide simulated lane is used is to give the trainee a clearer image of the difference between the three lane positions being used.

Directions

- To begin with, have the trainee drive with the least effect from the camber. Allow students to experience the effect that an upgrade and downgrade camber has upon an effective speed selection.
- Explain to the trainee the way the course set-up is to be used.

Evaluation

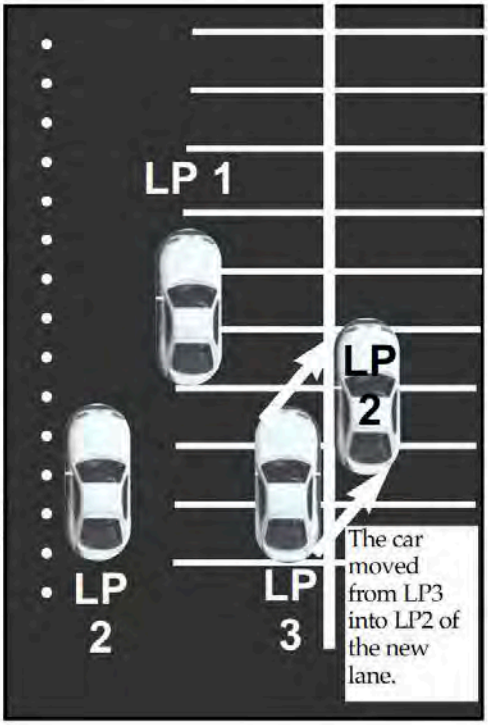
- Observe the trainee's performance of specific behaviors. Give feedback as to which behavioral pattern is being performed successfully.

M

Coaching Tips

- Coach the trainee to immediately correct the sliding action to get the car moving towards the target. The longer the "off-target" condition takes place, the greater the "yaw" angle becomes.

Give Positive Feedback! At all times observe each behavioral pattern. When the trainee performs correctly, give positive feedback. If not correct, **Cue, Coach, Compliment** one behavior at a time.



Lane Positions M

Introduction to Lane Position Usage:

Begin this activity In Non-Monster Mode. After success do activity in Monster Mode. **Have trainee start in LP2 near the set-up cones while the caster is locked.** Direct the trainee to move into LP1. Then, go back to LP2 and have the trainee move into LP3. Do this a few times at various speeds.

- ***Positions Car in LP2 accurately*** (demonstrates or explains which reference points are being used)
- ***Positions Car in LP1 accurately***
- ***Positions Car in LP3 accurately***

- ***Moves from LP3 to LP2*** (simulates making a right lane change)
- ***Moves from LP2 to LP3*** (simulates making a left lane change)

M

Habits Practiced in this Set

Habit 4. Use Reference Points
Habit 8. Get Rear Zone Control
Habit 10b. Interact Courteously With Others

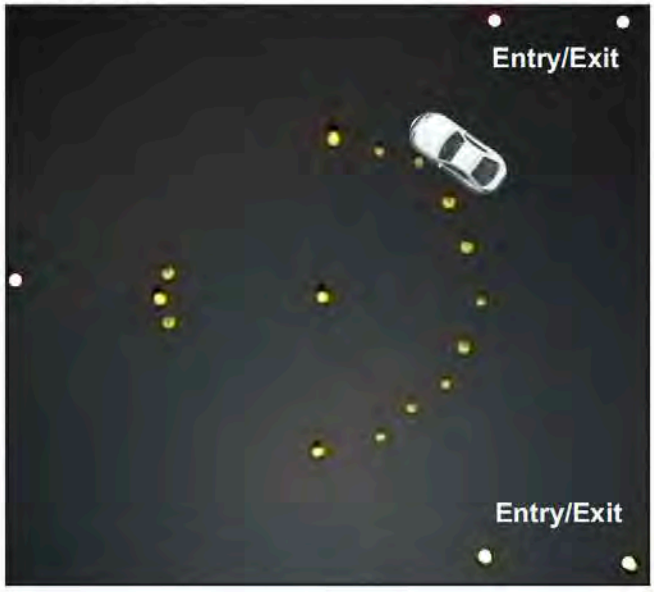
N Constant Radius Circle Speed Control

Objective

This lesson will give the trainee an opportunity to learn the effects speed has upon the control of various radii curves.

Course Set-up

See the Exercise Set-up section of this book for complete information.



Directions

- Follow the directions stated on the next page.
- As soon as the car spins out, flip the switch forward to the non-monster mode and direct the student to travel around the circle in the opposite direction that the car was traveling before it spun out. This will allow the castering wheel to rotate so that the locking pin can fall back into the hole.
- When the car stalls it may roll backwards. Get an immediate braking action from the trainee to prevent the car from rolling off course.

Evaluation and Coaching Tips

- Observe the trainee's performance of specific behaviors. Give positive feedback for specific behavior that you evaluated as being correct.
- Always try to avoid telling the trainee what they did wrong. **Emphasis what they did correctly.**
- When you see the trainee doing something incorrect, coach him/her to get a correct action.
- When you flip the switch while the car is going into the downgrade camber it will have the most violent effects. Point out to the trainee the effects that the camber has upon the ability to keep car control.

Constant Radius Circle Speed Control N

Safe Skid Monster Operation:

- Leave 20 or more feet of empty space outside the path the car will be traveling.
- Be prepared to tell the trainee to "brake" if the car begins to roll backwards.
- When the car stalls, it is a good opportunity for the trainee to use "open palm" shifting into neutral to restart without delay.

Establish Speed of 10 mph, after success increase speed to 12 mph:

Begin the activity in the Non-Monster Mode position. **Ask the trainee to drive 10 mph while holding the car close to the outside of the circle of cones.** Keep the car close to the cones. **After a few revolutions switch to the MONSTER mode** (represents hitting "black ice." Repeat process with turns to the right.

- Establishes ***constant speed***
- ***Detects front of the car's movement*** off its constant radius (yaw angle)
- Has ***central vision focused through curve***, not at yaw angle
- Uses ***fringe vision*** to keep car on course
- ***Takes corrective steering action*** without hesitation
- Keeps car in ***travel path***
- ***Controls speed*** of car

Establish Speed of 14 mph:

- ***Demonstrate the effect that a few miles per hour has*** in losing vehicle control
- After car is beyond the controllable speed, reduce speed to show how control is gained with a speed reduction

Begin in Monster Mode Position:

Tell the driver to travel around the circle to represent a constant radius **left curve.** Have the driver stay close to the cones and keep increasing speed until he/she is not able to maintain a controlled yaw. **Repeat process with turns to the right.**

- ***Detects front of the car's movement*** off its constant radius (yaw angle)
- Has ***vision focused through curve***, not at yaw angle
- ***Takes corrective steering action*** without hesitation

Habits Practiced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 4. Use of Reference Points
Habit 6b. Get speed control, lane positioning

O Constant Radius Circle Entering Curves

Objective

This set will give the trainee practice using vision, braking and acceleration techniques to approach and enter a curve. Opportunity to experience the consequences of a premature brake release will also take place.

Course Set-up

The same curve of Set "N" will be used. This activity will make use of the entry and exit gates.

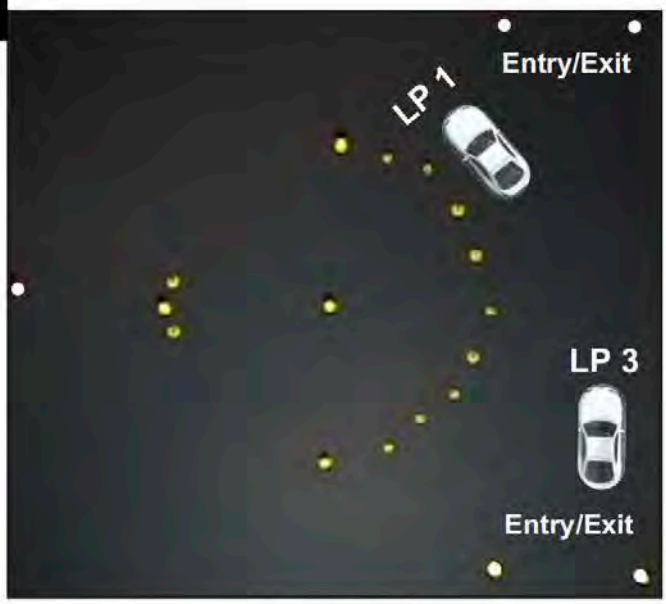
Directions

- Use the longest approach you can depending upon the amount of space you have in the parking lot. The longer the approach, the more effectively you are able have the trainees practice braking techniques.
- Have the trainee approach the curve by using the entry gate. Treat the exercise as if it is a curve in the roadway.

Evaluation

Observe how the trainee is performing all of the key behaviors for each activity.

O



O Constant Radius Circle Entering Curves

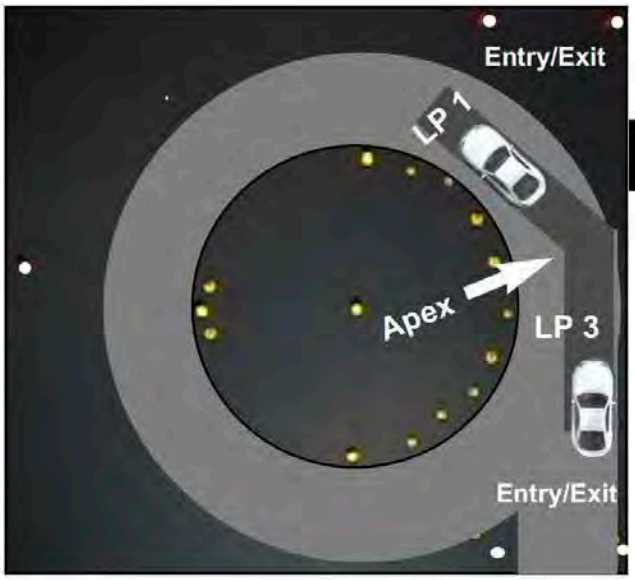
Entering Curves:

Begin this activity in the Monster Mode. Have the driver start on a straight path as far away from one of the entry gates. Get the car up to 15 mph before entering the gate. Observe how the driver is using the brakes, vision and steering when entering the radius of the curve.

- Uses ***Target Area Searching*** when approaching the curve.
- Lane Position: ***Constant LEFT CURVES: approach LP3, apex LP1, exit LP1***
- Lane Position: ***Constant RIGHT CURVES: approach LP2, apex LP1, exit LP1***
- Effective use of ***speed control***
- ***Applies brake before turning***

(On brake to prevent skid, off brake during skid)

- ***Turns head to look into curve*** before steering
- ***Detects and corrects skid yaw*** without hesitation
- Uses ***effective steering technique***



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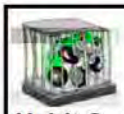


Habits Practiced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 4. Use of Reference Points
Habit 5. Zone Control LOS-POT Search Dance
Habit 6b. Get speed control, lane positioning

P Constant Radius Circle Demonstration

Objective

This set will give the trainee practice using vision, braking and acceleration techniques to approach and enter a curve. Opportunity to experience the consequences of a premature brake release will also take place.

Course Set-up

The same curve of Set "N" will be used. This activity will make use of the entry and exit gates.

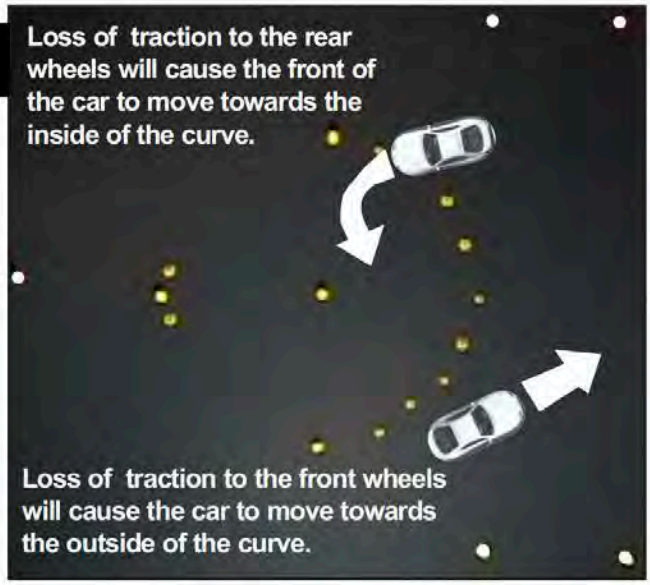
Directions

- Have the trainees experience the demonstrations to see how much easier the car goes out of control when there is a curve with a downgrade as compared to one with an upgrade.

Evaluation

Observe how the trainee is performing all of the key behaviors for each activity.

P



Constant Radius Circle Demonstration

P

Demonstrate the effects that a downgrade and road camber has upon speed control.

- With the driver traveling at 12 mph while on the upgrade switch to monster mode.
- Then with car in non-monster mode while traveling at 12 mph place the car in the monster mode when the car is on the downgrade.
- Compare the effects that a downgrade has upon the quickness of the skidding action.

  - ***Demonstrate*** control while "hitting black ice" ***on an upgrade***
  - ***Demonstrate*** control while "hitting black ice" ***on a downgrade***

Demonstration of early brake release:

- After successful approaches into the curve, have the driver release the brake before steering to experience the consequences of a premature brake release.

P

Habits Demonstrated

Habit 3. Keep the Car in Balance
Habit 6b. Get speed control, lane positioning

Q Decreasing Radius and Exiting Curves

Objective

During this set the trainee will be able to practice the use of vision and acceleration to effectively exit a curve. Trainees learn the consequences of excessive speed while exiting a curve from a constant radius to a decreasing radius when the vehicle is at its traction limitation.

Directions

- Use the directions that are on the next page.

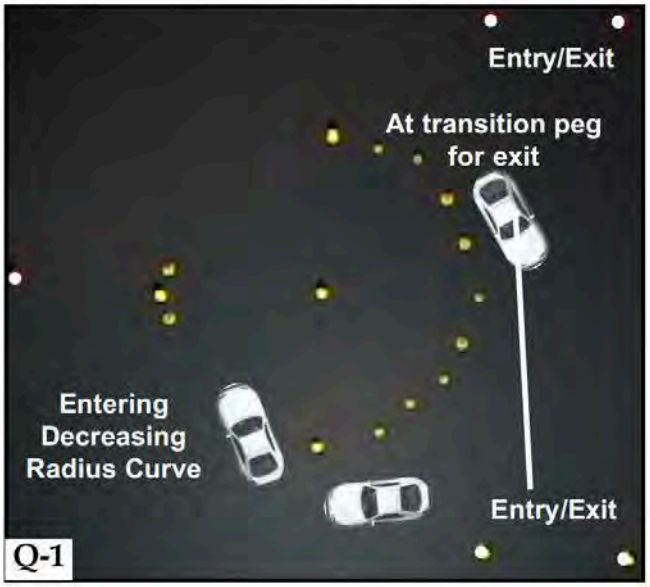
Evaluation

- Use the student eye monitor mirror to view where the eyes are directed during travel around the curve.
- Observe in the eye monitor whether there is a change in the trainee's head and eye movement from that used during travel in the constant curve. You should see an additional movement of the eyes and head toward the decreasing curve.
- You should see a change in eye and head movement when the driver is exiting. The head should at least be in alignment with the transition peg. Then as the car is completing the exit you should see the head straighten to be aligned with the target and the steering wheel.

Coaching Tips

Background: When a curve has a decreasing radius, it means that the curve becomes tighter requiring more steering into the curve. You may find this type of curve occurring on a cloverleaf designed exit ramp. Speed selection is the primary behavior that results in success or failure. With excessive speed at the limitation of control during the first part of the curve, which has the larger radius, the driver is unable to put more steering in at the point where the curve tightens. There is no more steering available and the car goes out of control.

Q



Q-1

Decreasing Radius Curve and Exiting Curves Q

Decreasing Radius Curve:

- **Part 1:** Have the driver travel in a constant radius curve. After driving around the circle a few times at the maximum controllable speed, have the driver turn into the inside gates of the curve.
- **Part 2:** Do the same activity at a slower speed around the constant radius before turning into the decreasing radius gates. Compare the control one has when speed is not excessive.

- ***Detects front of the car's movement*** off its constant radius (yaw angle)
- Has ***vision focused through curve***, not at yaw angle
- ***Takes corrective steering action*** without hesitation

Exiting Curves:

Begin this activity in the Monster Mode. After having the driver travel at least one or two times around the circle direct him/her to exit the circle, which will represent exiting a curve. This will give you an opportunity to evaluate whether the driver is looking through the curve to a new target area where the the road becomes a straightaway.

- Sets up correct lane position in preparation for exiting
- Lane Position for ***LEFT CURVES: apex LP1, exit LP1***
- Lane Position for ***RIGHT CURVES: apex LP1, exit LP1***
- Effective use of ***speed control***
- ***Turns head to new target area*** before steering
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg*** (corner post, rear view mirror)

Q

Habits Practiced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 4. Use of Reference Points
Habit 5. Zone Control LOS-POT Search Dance
Habit 6b. Get speed control, lane positioning

Part Two
Skill Practice

R Curves, Turns and Roundabouts

Objective

This set gives the trainee the opportunity to practice all the behavioral patterns from sets H-M. The trainee will practice entering and exiting curves and turns, constant and decreasing radii curves, the effect that speed has on approach to curves, and how to maximize speed and control. The consequences of excessive speed when the vehicle is at its traction limitation is experienced.

Course Set-up and Directions

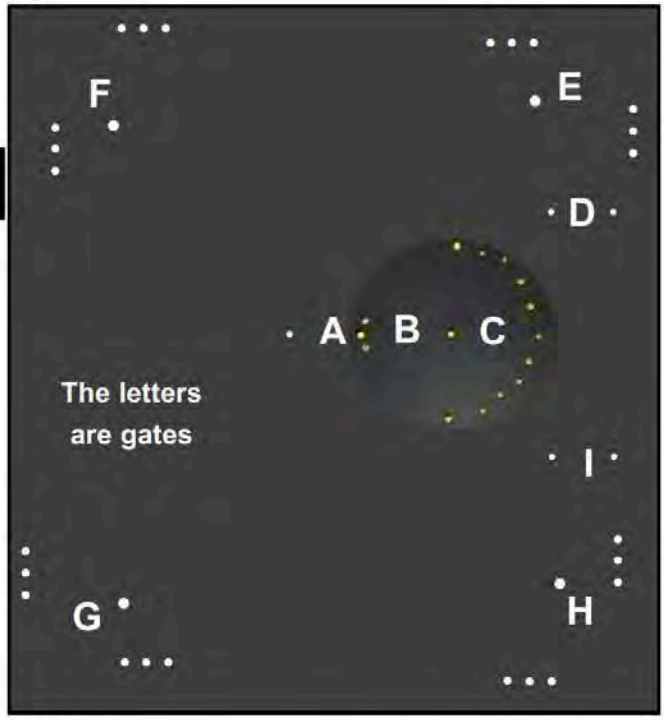
- Use the four corners and the curve set-up "N". Have the trainees drive in various patterns. You can use a letter to identify each gate and have the trainee drive through a prescribed course designated by going from one gate to another.

Evaluation

Have the driver observe how important reducing speed while approaching a curve is to vehicle control. **The smaller the radius, the slower the speed must be. Generally, trail braking should be maintained until the driver has a straight unrestricted view to the target area.**

Coaching Tips

- Make changes in speed verbalizing the speed the car is traveling.
- Get students to feel the reduced traction before entering the curve.
- Have trainees consciously demonstrate vision usage and the transition peg.
- At all times observe the performance of all behavioral patterns.



R

Curves, Turns and Roundabouts

Compare Speed of Success and Failure Approaches
(LP=Lane Position)

- Uses ***Target Area Searching*** when approaching the curve.
- LP for Constant ***LEFT CURVES: approach LP3, apex LP1, exit LP1***
- LP for Constant ***RIGHT CURVES: approach LP2, apex LP1, exit LP1***
- Effective use of ***speed control***
- ***Applies brake before turning***

(On brake to prevent skid, off brake during skid)

- ***Turns head to new target area*** before steering
- When Braking is needed, ***holds partial brake pressure*** of 20-30% (trail braking) ***until at Transition Peg*** (corner post, rear view mirror)
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- Uses ***effective steering technique***
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg*** (corner post, rear view mirror)
- Entering and leaving **Roundabouts** effectively. (travels counter clockwise at all times)
- Experiences ***effects of curve's radius*** on speed control
- Experiences ***effects of road grade and camber*** on car control
- Experiences ***effects of One or Two Excessive miles per hour*** on control

R

Habits Practiced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 4. Use of Reference Points
Habit 5. Zone Control LOS-POT Search Dance
Habit 6b. Get speed control, lane positioning

S Precision Lane Change

Objective

This activity will give the trainee an opportunity to demonstrate the ability to make precision lane changes. The value of making smooth steering actions for a gradual lane change, lane position by lane position, becomes evident during this activity.

Course Set-up

Use the same Set-up from set M.

Directions

- Ask the trainee to perform a precision lane change, lane position by lane position, on a conscious level by you first asking the trainee to demonstrate how and why the lane positions are used.

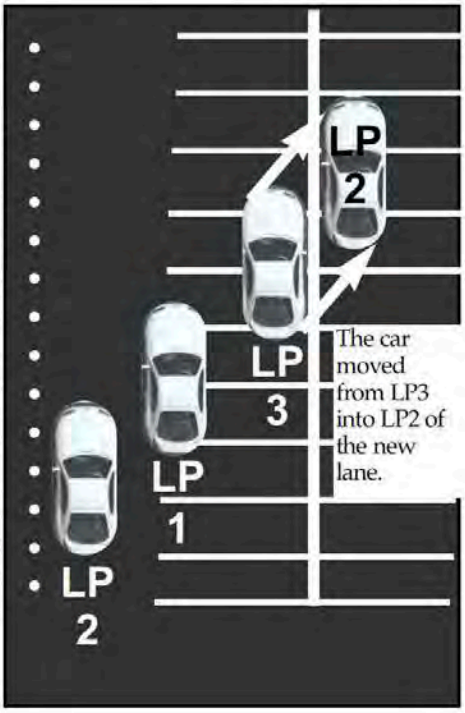
Evaluation

- Direct the trainee to begin in LP1 and make a lane change to the right. Observe a pause at each of the lane positions: from LP1 to LP3 to LP2. Then request a left lane change.
- You should be able to see a defined pause at each of the exiting and entering lane positions.
- Observe the trainee's performance of specific behaviors. Give feedback as to which behavioral pattern is being performed successfully.

Coaching Tips

- Coach the trainee to immediately correct the sliding action to get the car moving towards the target. The longer the "off-target" condition takes place, the greater the "yaw" angle becomes.

Give Positive Feedback! At all times observe each behavioral pattern. When the trainee performs correctly, give positive feedback. If not correct, **Cue, Coach, Compliment** one behavior at a time.



Precision Lane Change S

Make Precision Lane Changes:

Mix up the MONSTER mode to activate the MONSTER mode at various moments during the lane change. **See how quickly the trainee recognizes that there is a reduced traction situation. See how quickly the yaw angle is corrected.**

- Evaluate zones for ***open Path of Travel***
- ***Mirror and blind spots checks***
- ***Use of Lane Change Signal Indicator*** (keep finger on lever)
- ***Uses small steering input*** making lane change
- Begins from ***LP2 to LP3***, or from ***LP3 to LP2***
- Makes ***final blind spot check***
- ***Enters new lane*** in LP2 or LP3
- ***Recognizes yaw condition*** without delay
- ***Uses targeting*** effectively
- ***Takes*** effective ***corrective action***

- Sees ***value*** of making ***gradual lateral movements***

S

Habits Introduced in this Set

Habit 8. Get Rear Zone Control

Habits Practiced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 4. Use of Reference Points
Habit 5. Zone Control LOS-POT Search Dance
Habit 6b. Get speed control, lane positioning

T Evasive Lane Change

Objective

This exercise will give the trainee an opportunity to experience behavioral patterns necessary for effectively avoiding the surprise situation that results in the need to perform an evasive steering action.

Directions

- Begin with a speed no more than 10 miles per hour. Then, as the trainee performs successfully you can increase the approach speed to a maximum of 20 mph.
- There is no value to going faster!
- **Always have the MONSTER Mode selected before the steering wheel is to be turned.**
- As the trainee approaches the obstruction (three cones or a prop), you will tell him/her to go to the "**left**", to the "**right**" or to "**stop**".
- **Switch to Non-Monster Mode after the car has stopped at the stop gate or while returning to the entry gate.**

Use Course Set-up "T"

Evaluation

- Use the student eye monitor mirror to view where the eyes are directed during the steering action. A common error is for the trainee to look at the obstruction, or where the car is going, rather than to look at the target area.
- Two of the most common errors in steering are: 1. The driver will turn too much on the first steering action. 2. There will be a delay taking the second steering action.
- Be prepared to observe two or three of the key behavioral patterns during each run. When you see errors being made, coach the trainee for success.

T

Evasive Lane Change T

Behavioral Patterns For Evasive Lane Change:

- ***Holds the steering*** with both hands for a ***9-3 position***
- ***Focuses on target area*** — not on what is being avoided
- Makes ***initial steering*** without taking hands off the wheel
- ***Stays off the brake and the gas pedals*** while steering
- ***Takes counter steering actions*** to keep roll axis in balance
- When car goes into a skid, ***turns steering rapidly towards target***
- When ***steering is controlled***, applies ***brake or acceleration*** as needed

Behavioral Patterns For Braking:

- ***Checks rearview mirror*** when foot goes on the brake
- ***Holds the steering*** with both hands for a ***9-3 position***
- ***Focuses on target area*** — not on what is being avoided
- For ***ABS brakes: applies firm pressure*** and holds pedal
- No ABS brakes: ***uses controlled threshold braking*** without locking the wheels
- If car skids, releases brake pressure and ***turns steering rapidly towards target***

Quick Guide EVASIVE Lane Change

1. **Keep Both Hands On Wheel** (for initial turn)
2. **Focus On Target Area**
3. **Use Minimum Turning**
4. **Take Counter Steering Action Immediately** If car skids, turn wheel rapidly towards target
5. **Stay Off Gas and Brake Pedals** until steering is complete
6. **Keep Head and Eyes On Target**

Habits Practiced in this Set

Habit 5, 6, 7, 8, and 9

T

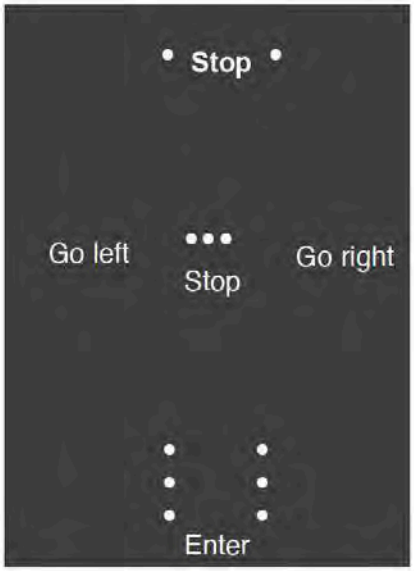
U Evasive Demo

Objective

The value of having awareness of one's targeting path becomes evident during this demonstration. The importance of keeping four seconds of following time is clearly contrasted to the disadvantage of keeping a lesser following time. Techniques that are necessary to perform an evasive braking or steering action are demonstrated and practiced.

Course Set-up

See the Exercise Set-up section of this book for complete information.



Directions

Demonstrates Value of Four Second Following Time

- Place switch in the MONSTER Mode before the evasive action is to be taken. The three obstruction cones represent a car that suddenly stopped in front.
- The number of seconds the car is away from the "stopped car" when the command to go "left" or "right" or "stop" is given will be represented by marker cones placed at 4, 3, 2, and 1 seconds away.
- Have the trainee experience how much greater the control is when he/she is four seconds away from the car compared to a lesser amount.
- For the first approach wait until the front of the car is at the 1-second mark before calling left or right (give the "stop" command after they do the left or right movement from the 4-second mark).
- Do an approach at the 4-second mark for the trainee to see the control gained with more time and space.
- When time permits you can repeat this sequence, doing the evasive from one second away, then from four seconds. The contrast of lost of control

Directions (Continued)

Demonstrate Evasive Braking

- In Monster Mode, when you are at the 1-second cone give the command to "stop". Observe trainees' rearview mirror use, and eyes on target steering.
- On the next run, give the command to "stop" when you are at the 4-second cone. Compare the difference following time makes for less stressful braking.

Demonstrates Value of proper Lane Positioning

- Place switch in the MONSTER Mode before the evasive actions is to be taken.
- The three cones represent a car that was parked on the right side of the road that suddenly pulls into our path of travel.
- Have the trainee get into the wrong lane position, lane position three, and give the command to make a left lane change. The trainee will experience incorrect lane positioning if an evasive is necessary.
- Then have the driver get into lane position two, which represents the correct lane position after seeing the parked car. Have the trainee take an evasive steering action to the left. The trainee experiences the difference between correct and incorrect lane positioning. The correct lane position required only half a lane change to complete the evasive.

Variables You Can Demo in this Set:

- Effects Speed has upon car control
- Effects Lane Positioning has upon steering inputs
- Effects Following Time has upon taking an evasive braking or steering action.

Demonstrates Value of Four Second Following Time

- Experiences the ***effect following time*** has upon ***car control for evasive steering and braking***
- Experiences the ***effect following time*** has upon ***reducing driver stress***

Demonstrates Value of Lane Positions

- Experience the value of an ***early detection of an LOS-POT blockage***
- Experiences the importance of using the ***proper lane position***
- Experiences the importance of ***minimizing steering action***

Habits Practiced in this Set

Habit 4. Use of Reference Points
Habit 5. Do the Zone Control LOS-POT Search
Habit 6. Turn Decisions into Z. Control Actions
Habit 9. Get Control with a Vehicle in Front
Habit 10. Interact Courteously With Others

Off Road Recovery W

Level Shoulder: Off-Road Recovery

- ***Holds the steering firmly*** with both hands for a ***9-3 position***
- ***Releases acceleration*** pressure and ***stay off the brake***
- Moves into ***Lane Position 5*** to ***straddle the pavement edge***
- Checks ***left-rear zone*** and ***signal for re-entry*** into traffic (when possible)
- ***Focuses on the target area***
- ***Cuts steering wheel a quarter turn towards pavement*** without taking hands off the wheel
- Immediately ***takes counter steering action towards target area*** to keep roll axis in balance
- If car goes into a skid, ***turns steering rapidly towards target***
- When ***steering is controlled***, resumes acceleration, or initiates braking

Down Slope: Off-Road Recovery

- The ***effect of down slope shoulder*** requires: go down the slope, reduce speed
- Any attempt to get back on road until speed is reduced could cause a roll over

Trainee Should be able to Experience:

- The importance of having ***targeting path awareness*** to get back onto the roadway
- The ***effect speed has*** upon control
- The ***importance of two hands on wheel*** during initial steering action
- The ***effects of excessive steering*** inputs
- Proper ***targeting techniques*** for control
- Proper techniques for ***initial steering and recovery behavior*** to re-enter the pavement

Simulated being Distracted or Drowsy:

- While approaching Gate A (or any gate) you hold the steering wheel and hold a paper in front of the driver to block his/her vision for one or two seconds to simulate drowsy or distracted driving. With vision blocked you steer the car into the Gate.
- As soon as the car enters the Gate remove the blocked vision, put the car in Skid Mode, and have the trainee get the car back on the targeting path.
- Repeat at anytime at any Gate.
- Emphasize **loss of vision equals loss of control**.

Habits Practiced in this Set

Habit 2. See Path Before Putting Car in Motion
Habit 3. Keep the Car in Balance
Habit 4. Use of Reference Points
Habit 5. Do the Zone Control LOS-POT Search
Habit 6. Turn Decisions into Zone Control Actions

W

X Vehicle Failures

Objective

During this set the trainee will demonstrate the ability to cope with simulated vehicle failure.

Course Set-up

No set-up is needed.

Directions

- You can present this set at anytime during the training sequence depending upon your schedule and the trainees' performance.
- The three activities: shifting into neutral, stalled engine and tire blowout could be presented separately. Each on a different session. However, when they are first being learned they should not be presented out of order. For example, the trainee should learn how to effectively shift into neutral before being presented with the "stalled engine" problem.
- While doing the stalled engine, have the car moving into a situation that requires turning of the steering wheel. The trainee will be able to experience the loss of power steering when engine power is loss. Steering will need to be very forceful, but nevertheless achievable.

Open Palm Shifting into neutral takes place with the hand on top of the shift level knob placing pressure on it while pushing it towards the dashboard. This photo shows the driver shifting open palm into neutral.

With the car stopped, have the trainee demonstrate that he/she is able to place the shifter in neutral without looking at the shift indicator.

Open Palm Shift into Neutral

- Use a shifter on the steering column
  - Trainee places **hand over shift knob**
  - With the **shift knob in the palm,** have the fingers extended, not gripping
  - The **palm presses down** on the shift knob and **pushes it forward** towards the dash
  - This action will allow **the shift to stop in neutral**
  - **There is no need** to look at the indicator

With the car moving at 10 m.p.h. and in the Monster Mode, reach over and turn the ignition off. Have the trainee, maintain steering and restart the car without more than three seconds lapse of time.

Stalled Engine

- Steer firmly during turns or hold steady on a straight away.
- Slap the shift selector into neutral using open palm method.
- After shifting into neutral, quickly turn the key to restart the engine without a need to come to a stop.
- Shift to Drive by pulling the shifter down one notch.
- Continue to drive your course.
- If the car doesn't start immediately, look for an escape path while there is still momentum.

With the car moving at 10 m.p.h. and in the Monster Mode, reach over and move the steering wheel quickly in either direction while at the same time say, "Your tire just blew out". The trainee is to regain control of the car. This activity is best performed after the trainee has completed Sets "H" and "I". It is best to surprise the trainee with this action.

Tire Blowout

- See that trainee's foot comes off the pedals as you move the ***steering wheel off target*** to simulate the tire blowout
- **Trainee *Keeps Head On Target*** as steering wheel moves car off target
- ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
- ***Keeps head turned towards target*** during skid recovery
- With car back in control, ***selects a safe location to deal with the failed tire***

Part Three
Police Activities

Po 1 Timed Course

Objective

During this set the trainee will demonstrate the ability to operate the vehicle through a defined course as quickly as possible without hitting any cones and without going off course.

Course Set-up

Use Set-Up Po 1.

Directions

- You can present this set at anytime after Set U has been performed in an acceptable manner.
- You will need a stop watch to time the run each trainee makes.
- Start and end the run with the front of the car even with the gate I cones.
- If any cones are hit, the run is stopped and is disqualified for any timing.
- If the car spins out, but stays on course, the run can continue to be timed.
- There are four levels that this activity is conducted at.

Level One: This is for orientation and evaluation

- **Actuate Monster Mode from inside the car.**
- You are in the car giving the trainee directions one gate at a time.
- You will observe the efficient use of all the key behaviors and give the trainee feedback or coaching.

Level Two: This is good for practice time

- **Actuate Monster Mode from outside the car.**
- There is a driver and a partner in the car during this activity.
- The partner reads the directions to the driver.

Level Three: Includes practice using the radio

- **Actuate Monster Mode from outside the car.**
- The driver in alone in the car.
- The driver is given directions three steps at a time over the radio by one of the trainees. You will need to have access to two-way communications.

Level Four: To develop night driving standards

- **Actuate Monster Mode from outside the car.**
- The driver is alone in the car as in level three.
- This level occurs at night to give the trainees opportunity to compare the difference in performance from that which was scored during the daylight conditions.

Evaluation

- Keep account of the trainee's time for each run. Ask them to do the same run again for a better time.
- Evaluate how vision, motion control, steering and lane positioning is improved.
- Incorrect use of speed will result in slower time.

Use of the Monster Mode: cycle the monster mode off and on. Always have the switch in the monster mode before any steering action, or while a steering action takes place. On some of the runs you can leave the switch in monster mode.

- Starts the car ***in motion smoothly***
- Effective use of ***lane positioning to set up*** the approach to a curve.
- Effective use of ***speed control for curves***
- ***Makes speed adjustment for curve's radius***
- ***Applies brake before turning***
- ***Turns head to new target area*** before steering
- When Braking is needed, ***holds partial brake pressure*** of 20-30% (trail braking) ***until at Transition Peg*** (corner post, rear view mirror)
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- Uses ***effective steering technique***
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg*** (corner post, rear view mirror)
- Adjusts for ***effects of road grade and camber*** on car control
- ***Stops the car smoothly*** at end of run
- ***Stops the car with precision*** having the front bumper even with the starting gate cones.

Run One:

Start at I, I-E, E-F, F-A, A-A, A-C, C-J, J-E, E-D, D-B, B-I, I-H, H-M, M-J, J-F, F-G, G-H, H-I stop.

Run Two:

Start at I, I-A, A-D, D-E, E-J, J-A, A-C, C-A, A-A, A-M, M-H, H-E, E-F, F-G, G-K, K-L, L-C, C-A, A-K, K-H, H-I stop.

Run Three:

Start at I, I-D, D-B, B-K, K-M, M-G, G-F, F-J, J-B, B-D, D-E, E-F, F-C, C-K, K-M, M-H, H-I stop.

Po 2 Simulated Code 3

Objective

This set simulates operating with lights and sirens. The trainee will demonstrate the ability to operate the vehicle through a defined course as quickly as possible without hitting any cones and without going off course while a siren is blasting into the driver's cockpit. When and how to use the lights and siren can be incorporated into this set.

Course Set-up

Use Set-Up Po 1.

Directions

- You can present this set at anytime after Set Po 1 has been performed in an acceptable manner.
- Make a tape recording of a siren sounding with the variety of pitch changes.
- Place tape recording in the car's tape deck at or near full volume.
- If any cones are hit, the run is stopped and the car returns to starting gate I.
- If the car spins out, but stays on course, the run can continue to be timed.
- You can use four levels to conduct this activity at, similar to those used in Set Po 1.

Level One: Actuate Monster Mode from inside the car.

Level Two: Actuate Monster Mode from outside the car.

Level Three: Practice using the radio and lights.

Level Four: Conduct this activity at night

Simulated Code 3 Situations

- Give different situations that will require the use of lights and siren and some that do not. For example:
  - respond to the scene of a car crash (ask, "what additional information do you need?"
  - respond to the scene of domestic violence.
  - respond to "officer in trouble".
  - respond to home alarm went off.
  - respond to silent alarm break-in.
  - respond as the second responder to a pursuit.
  - respond as back-up for a motor vehicle stop.
  - others.....
- Ask trainees, "which one of these situations requires lights and siren, which do not"?
- Ask trainees, " which of these situations will you make better if you crash on your way there"? Tell them, "you can't be of any help if you don't get there".
- Keep account of the trainee's time for each run. Ask them to do the same run again for a better time.
- Evaluate how vision, motion control, steering and lane positioning is improved.
- Look for the error of aggressive speed going into turns.
- Fast into turns = slow out of turns.
- Slow into turns = fast out of turns.

Use of the Monster Mode: cycle the monster mode off and on. Always have the switch in the monster mode before any steering action, or while a steering action takes place. On some of the runs you can leave the switch in monster mode.

- Starts the car ***in motion smoothly***
- Effective use of ***lane positioning to set up*** the approach to a curve.
- Effective use of ***speed control for curves***
- ***Makes speed adjustment for curve's radius***
- ***Applies brake before turning***
- ***Turns head to new target area*** before steering
- When Braking is needed, ***holds partial brake pressure*** of 20-30% (trail braking) ***until at Transition Peg*** (corner post, rear view mirror)
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- Uses ***effective steering technique***
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg*** (corner post, rear view mirror)
- Adjusts for ***effects of road grade and camber*** on car control
- Uses lights and siren effectively.
- Is able to use radio effectively.
- ***Stops the car smoothly*** at end of run
- ***Stops the car with precision*** having the front bumper even with the starting gate cones.

Run Four:

Start at I, I-E, E-F, F-G, G-K, K-C, C-J, J-E, E-A, A-C, C-A, A-A, A-B, B-D, D-F, F-G, G-H, H-I stop.

Run Five:

Start at I, I-F, F-G, G-H, H-A, A-C, C-A, A-E, E-F, F-G, G-K, K-L, L-C, C-A, A-K, K-H, H-I stop.

Run Six:

Start at I, I-D, D-B, B-B, B-A, A-D, D-F, F-A, A-D, D-E, E-F, F-C, C-K, K-M, M-H, H-I stop.

Po 3 Simulated Pursuit

Objective

This set simulates pursuit driving situations. The trainee will demonstrate the ability to make decisions as to whether to pursue a fleeing vehicle. And, when operating the Skid Monster under pursuit conditions the trainee will demonstrate proper use of radio, lights, and siren while maintaining control of the vehicle and keeping the fleeing vehicle in sight. Also, the trainee will make decisions as to when to continue the pursuit or when to break it off.

The trainee will also experience the value of having the vehicle in a ready position by being backed into a perpendicular parking space to minimize high risk backing situations.

Course Set-up

Use Set-Up Po 3.

Directions

- This set is presented after Set Po 2 has been performed in an acceptable manner.
- Two Skid Monsters should be used. One will act as the fleeing vehicle and the other will be the police vehicle.
- When two Skid Monsters are not available, the fleeing car, driven by a trainee, can be any vehicle available in the training fleet.
- The same directions and rules as those from Sets Po1 and Po2 are used. In addition, the police car cannot get any closer than four seconds to the fleeing car.
- Two-way radios are used for a simulated communications system.
- The police car will be in the parking space, sometimes backed in, other times pulled in forward.
- You will act as the dispatcher, giving information about the fleeing vehicle.
- The trainee will determine whether to pursue.
- When the fleeing car enters Gate I the police car can begin the pursuit.
- The police car must travel through the same gates as the fleeing car. If not, the pursuit ends.
- The fleeing car must go through all gates at least once without blocking the path of the pursuit car.

Simulated Pursuit Situations

- Give different situations that could require a pursuit
  - car reported stolen heading your way...
  - armed robbery suspect fleeing...
  - driver just ran a red light...
  - driver speeding 60 mph in 25 mph zone...
  - wanted killer spotted in car....
  - others....
- Have the trainee evaluate the difference between having the car backed into a space as compared to having to back out of the space.

Use of the Monster Mode: cycle the monster mode off and on. Always have the switch in the monster mode before any steering action, or while a steering action takes place.

- ***Makes correct pursuit decision***
  - to pursue or not
  - regarding risk factors
  - regarding space management
  - to break off the pursuit

Pulling out of Parking Space

- **checks left, front, right**
- **turns head before turning wheel**
- **begins turning at reference point**
- **accelerates briskly at transition peg**

- **Keeps account of the fleeing car**
- Effective use of ***lane positioning to set up*** the approach to a curve.
- Effective use of ***speed control for curves***
- ***Keeps four seconds*** of space
- ***Makes speed adjustment for curve's radius***
- ***Applies brake before turning***
- ***Turns head to new target area*** before steering
- When Braking is needed, ***holds partial brake pressure*** of 20-30% (trail braking) ***until at Transition Peg***
- ***Detects and corrects skid yaw*** without hesitation
- Uses ***effective steering technique***
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg***
- Adjusts for ***effects of road grade and camber*** on car control
- Uses lights and siren effectively.
- Is able to use radio effectively.
- ***Stops the car smoothly*** at end of run
- Sees ***rear tires of stopped car***

Backing out of Parking Space

- ***Checks to rear of car*** before getting in
- Backs slowly
- Checks all four corners
- Clears cone, turns wheel effectively
- Use reference point to clear front cones
- Open palm shift to drive
- Searches left, front, right
- Turns head on target before accelerating
- Accelerates rapidly at transition peg

Rational of Behavioral Patterns from Activity Sets

In Set A

•***Windows up*** (no guillotines)
During a crash the head of occupants can be thrown into the side window. When the window is all the way up there is greater protection for reducing injury to the head. When the window is partially open, especially halfway the head of occupants can be severed or scalped by hitting the windows edge. If broadsided by a car running a red light at 40 mph, an occupant's head could hit the window with as much force as diving head first out of a four story building. And, when the window is open all the way, there is a greater chance that an occupants head can be outside the car during a vehicle rollover, even when safety belts are used. Therefore, the least risk for occupants is to drive with the windows up.

•***Butt-in*** seating position (slide butt all the way back).
By first pushing your buttocks to the back of the seat before sitting up straight you are able to gain the best lumbar support which will help to prevent back problems associated with driving. You are also able to be in position for making a maximum braking effort as there will not be a siding of your body rearward as you are applying the brake. And, during evasive steering actions your body is firmly in the seat which will help to give you best steering control.

• ***Seat adjustment***: height, distance (wrist even with top of steering wheel).
When the seat is properly adjusted you are able to use the pedals and steering wheel most effectively without increased muscle cramps or fatigue.

•***Safety belts on*** all occupants.
There are many reasons to have safety belts on. They can help you to stay out of crashes by keeping you in the driver's seat at a time when critical car controlling actions must be taken. During a crash they keep you away from the crash forces and prevent occupants from becoming flying missiles fired into the driver's compartment taking away opportunities to reduce the crash forces. With safety belts on the occupants body comes to a stopped position more slowly than what occurs without belts on, this reduces the force of impact upon the body. Within the body the brain and other organs are slamming to the skull and chest cavity of the body at a significantly slower rate.

•***Heel of right foot in alignment with brake pedal,*** ball of foot on brake.
With the foot in this position you are able to pivot your foot to the accelerator with the foot positioned at approximately a 30 degree angle. This position tends to be natural angle for the foot to be at. When a braking action is taken, the foot is pivoted onto the brake to be in a straight line with the leg and shoulder. This allows you to apply maximum braking force if needed. If the foot is at an angle while applying the brake you may lose 20 percent of your braking capacity, and under certain conditions your foot could slip off of the brake pedal costing you valuable stopping distance.

•***Pivot foot from brake to accelerator without lifting heel.***
By keeping your heel on the floor you are best able to make both smooth finessed stops as well as gain maximum braking when needed.

•***Balanced hand position*** on steering wheel; 9-3 preferred.
With a balanced hand position you are best able to take evasive steering actions in either direction. And, by keeping your hands on the steering wheel during an evasive steering action you will not make a common error of over steering during the initial steering action.

In Set B

•***Checks the left, front and right zones before moving.***
Before putting the vehicle in motion, you want to check the left, front and right zones to be certain that nothing is going to compete with you for the space that you intend to occupy. When the car is stopped you have an opportunity to make a 90-degree check to your left and to your right as well as checking the front zone. A 90-degree check left or right requires that you turn your head in the direction your shoulder is pointing. This will allow you to gain the maximum amount of information when stopped at intersections to best locate a gap or hole in the traffic flow. When you drive into an intersection, you are exposed to the highest risk location, where the largest percentage of multiple vehicle crashes take place. The most common excuse given after an intersection crash is, "I didn't see it". **We see with our mind**. Our mind tells the eyes what to look for. If we know where to look, and what to look for, the odds are more favorable that we will "see" what is being searched for. Search the left, front, and right zones of intersections before entering. The sequence of searching the three zones will vary according to LOS conditions. When there is an LOS restriction blocking your view, that should be the direction of the final search before entering the intersection. Often, you must make more than one search of a zone. When

making a turn, always make your last search in the direction you are turning.

•***Turns head on target before turning steering wheel.***
The eyes should always lead the vehicle. This behavior of turning the head before turning the steering wheel will pay dividends each day you drive by having you mentally ahead of the vehicle before you even begin to put it in motion. Many drivers get into the habit of pressing on the accelerator and then looking to see what is ahead. By turning your head first you are able to avoid accelerating into a situation that requires you to stop or reduce the amount of acceleration you put into the vehicle. Turning your head before turning the steering wheel gets you in the habit of looking to your target area so that in critical traction situations you will be able to put the correct amount of steering and acceleration into the vehicle.

•***Positions Car on Target***, avoids over correction of steering.
The first skill to accomplish with your vision is the ability to put the front of the car heading toward a designated target. A target is a stationary object that appears in the center of the space we intend to occupy. For this training exercise we will select various objects that are beyond the perimeter of the parking lot. The purpose the target serves is to give you a specific object that you can aim the vehicle toward. Once you learn the concept of target usage you will not need to use specific targets as you will know exactly where your vision should be directed. So, targets are merely a temporary learning tool that we are using. When the car is positioned on target it is heading straight as an arrow for the selected target.

•***Uses Central and Fringe Vision*** (see target with central, see car to target with fringe).
The target is seen with your central vision. Central vision is the part of our vision that we use to clearly make identifications. When you "look" at something, you are seeing it with your central vision. While you are reading these words, you are seeing them with your central vision. Central vision takes in information within a narrow cone of 5-10 degrees. Surrounding the narrow cone of clear central vision is the fringe (or peripheral) vision. You are not able to identify objects with the fringe vision but you can detect motion and color. As you are reading these words, pause momentarily by fixing your vision on one word. Without shifting your

central vision you will only be able to see one or two additional words to either side, as well as above and below, the word you are staring at. The other words on the page are seen as blurs with your fringe vision. The further away from your central vision the words are the more blurring takes place. You see the target with your central vision. See the target aligned with the steering wheel with your fringe vision.

•***Hand-Over-Hand*** or ***Pull-Push*** method used effectively.
There are applications for the use of both methods of steering. When there is a need for quick steering inputs, such as during a skid recovery or while making a moving right turn (you need twice as much steering inputs to make a tight right turn as you do to make a left turn) then hand-over-hand steering could be the most efficient. However, when you want small steering inputs with good control, such as when entering a curve, or when making a lane change,then a pull-push method may be best. A pull-push technique can give smoother steering motion than a push-pull. Use of the pull-push technique will be safer if the airbag deploys. The driver's arms are less likely to be in the path of the airbag.

•***Knuckles and thumbs on outside*** when holding and turning the steering wheel.
There is nothing to gain by having the thumbs wrapped around the steering wheel. And, during a crash the weight of your body may be supported by the thumbs resulting in injuries to them. Also, if a rapid steering action needs to take place you would not want your thumbs in the way.

•***Sees open space before accelerating***
Before engaging the vehicle in motion, get your eyes in motion to see that the space you intend to occupy is open. This behavior formed into habit will eliminate many premature accelerations whereby the driver puts the car in motion only to then apply the brake because of some event which closed the needed space. This type of start and stop often leads to stress and riskful actions that are not good for our health.

• ***Sets Car into motion smoothly*** (idle speed, then accelerate gradually)
When the car is set in motion from a rest position a great amount of force is applied initially to get the car rolling, Once the vehicle is rolling the amount of force needed is significantly reduced. Did you ever try pushing a stalled vehicle or sliding a heavy object?

When the vehicle is at rest, it takes a great amount of force to get it moving, once it is moving there is rolling friction rather than static friction which takes less force to keep it moving compared to setting it in motion. When ready to move the vehicle, take your foot off the brake and allow the car to move by its idle speed before pressing the accelerator pedal. By releasing the foot from the brake and allowing the car to get rolling by the idle speed, the correct amount of energy is applied to get the vehicle moving. This will give a smooth movement when acceleration takes place by allowing a gradual transition of the pitch forces. When the car is accelerated there is a downward pitch on the rear tires. With rapid acceleration, occupants feel their body pushed against the back of the seat. The more rapid the acceleration occurs from a stopped position, the greater the pitch forces are out of balance, resulting in less car control. Once the car is moving then additional energy is applied to move the rolling tires and there is no pitch force felt.

•***Applies brake with the right foot*** (unless physically restricted)
There is no advantage to having the habit of using the left foot on the brake in routine situations and there can be disadvantages. In some applications, such as starting the car in motion while on an upgrade, you would stop the vehicle with the right foot, then transfer holding the brake pedal with the left foot while the right foot is ready to apply acceleration. A driver that uses left foot braking is more likely to get confused between brake and acceleration usage during critical situations and as an elderly driver. When the right foot is used with the heel planted on the floorboard, you are able to have your foot in better alignment to apply the brake then if you were to use your left foot. The brake pedal in most vehicles is aligned with the right leg which makes it less efficient to move your left leg over to apply the brake with your left foot.

• ***Uses controlled threshold braking*** efficiently without locking the wheels.
Threshold braking is applying the brake hard and quick to achieve maximum braking force without causing wheel lock-up. Without ABS brakes, if the brakes are slammed on with full force, the tires will stop rotating which will reduce braking effectiveness and cause loss of steering. By use of threshold braking you should be able to slam on the brakes hard but only to the point just before the tires are ready to lock up. It is at the threshold of wheel lock-up that braking is most effective. A driver highly trained in how to apply threshold braking can stop a vehicle in a shorter distance than an

untrained driver using an ABS braking system. With proper driving habits, surprise situations are minimized. But, if you get behind the eight ball and must take a critical braking action, the brakes are applied as hard as possible without causing the wheels to lock up. When you don't have an ABS equipped vehicle, you have to be your own computer. You can apply the brakes hard, and then as soon as you feel or hear the wheels sliding, slightly release braking pressure (similar to the technique used for making smooth stops). **Do not pump the brakes.** A constant pressure on the brake pedal should be used.

• ***Makes smooth stops.***
As you step on the brake pedal and apply pressure, the front of the vehicle is pulled in a downward pitch. Making a smooth braking action requires a gradual release of braking pressure before the vehicle comes to a complete stop. Curl your toes back while the ball of your foot is on the brake pedal to release a slight amount of braking pressure so that the pitch forces will be in a level, balanced position just before the vehicle comes to a complete rest. A smooth braking action should be strived for by any driver. In addition to giving comfort to passengers, a smooth style of braking can give the driver a highly refined feedback system for determining if the vehicle is balanced. If routine braking consistently results in jerky braking actions, the driver becomes accustomed to that type of feeling. It feels normal for the vehicle to be out of balance, so when a surprise traffic situation requires the driver to make a harsh, unplanned, jerky braking response, it doesn't seem extraordinary, and there is no feedback to the driver that something went wrong!

In Set C

• ***Transition Peg***, accelerate rapidly while focusing on the target.
The transition peg identifies the placement of the vehicle to the target while a turn is being made. It is the precise moment when a change in steering, acceleration or braking should take place to have the best balance of the vehicle. **Transition Peg For Steering:** At this moment steering should begin to return to a straight (recovery) position. **Transition Peg For Acceleration:** At this moment an acceleration action will have a positive effect upon the vehicle's movement. **Transition Peg For Braking:** When the brake is applied into a turn it should be partially held until the car is at the transition peg.

In Set E

• ***Applies brake effectively before steering*** on Moving Turns.
Applying the brake before taking a steering action separates the braking and steering demands for traction, which gives you advantages. First, you get into the habit of reducing speed while still traveling straight which can tip you off if there is reduced traction. When speed is greater than the amount of traction for tire/road grip you are able to best keep car control by reducing speed before steering.
When you apply the brake while traveling straight you have a better opportunity to detect and correct tire slip than if you are braking and steering. With your foot on the brake while you are steering you are able to best keep the car's pitch and roll forces in balance.

• ***Detects and Correct Skid yaw*** immediately.
An essential skill to maintaining car control is the immediate detection when the skidding action is initiated to have an opportunity to correct it. When the front of the car moves ever so slightly off the intended target path, a steering action must be taken instinctively and correctly without allowing the skid yaw to increase. The smaller the yaw angle the better the chance of correcting the skid.

• ***Off pedals during skid*** (no gas, no brake).
When the car loses traction to the tires and skidding occurs, the first response should be to get off of the accelerator and off of the brake pedals. This will prevent you from putting in additional energy and give the car's tires an opportunity to regain traction.

• ***Keeps head turned towards target*** during skid recovery.
The vehicle will tend to be steered toward where the eyes are looking. With the head pointing toward the target your steering action will follow most correctly. When the vehicle goes into a skid you don't have time to think about which way the steering wheel should be turned. When your head is pointing to the target you automatically are able to make correct steering inputs.

• ***Keeps Partial Braking Pressure*** until ***Transition Peg*** on Moving Turns.
Holding at least 30% of the braking force will keep the front of the car pitched forward which gives you the maximum tire footprint for best steering action. Holding the brake will also help stabilize the roll forces of the car by keeping the suspension system compressed to prevent the front end from bouncing up while starting the steering action.

• ***Steering recovery*** initiated at ***Transition Peg*** (corner post, rear view mirror).
This is mostly of value to a novice driver to know at which stage of the turn the steering wheel needs to be recovered to the straight ahead position. By use of the transition peg, the driver is able to gain a visual picture of precisely when to begin straightening the steering wheel.

In Set I

• ***Selects Target before beginning turn***
During this exercise you will select a target before beginning the turn to gain practice in looking as far as you are able to in the direction you will be turning. This same behavior translates during traffic situations into gaining a mindset of what conditions will be in your target area before making a turn. In actual driving situations you would not need to "select a target", however it would be desirable to have the habit of getting your mind far to your new targeting path before making the decision to turn.

• ***Searches intersection for clear left, front, and right zones***
There are three locations that must always be searched before entering an intersection; the left, front and right zones.
The depth of the search in each direction should be all the way to where a target would be if you were to look to the left and to the right. The front zone requires more of a sweeping search to be certain that nothing will enter the space you need to occupy before making the turn. The direction of the search, whether it is searching left, front, right or right, left, front or any other sequence should be based upon the conditions in the intersection and the direction of travel. When you have a LOS restriction, there may not be opportunity to see beyond it until you are within a 45 degree line of sight from it. Therefore, the final direction of the

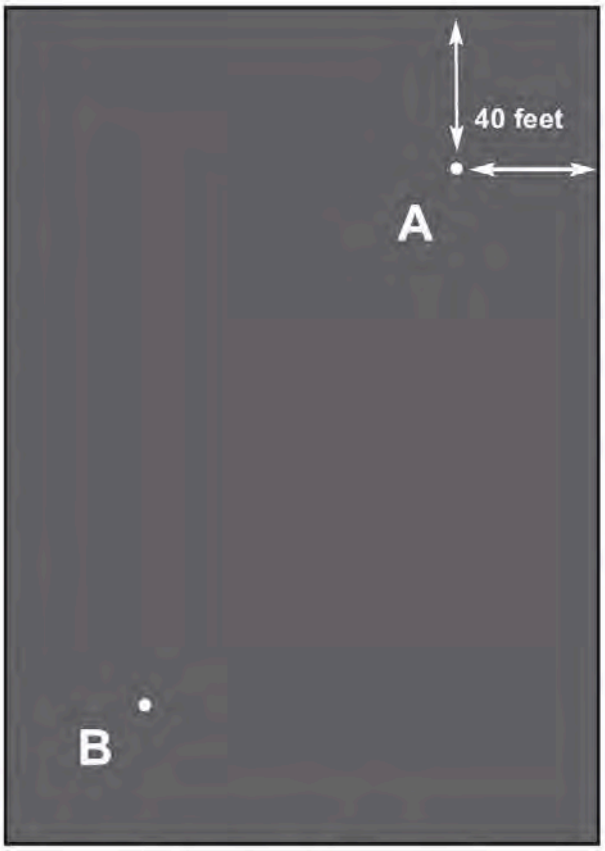
sequence will be where the greatest LOS restriction is. And, when making a turn the final direction you should be searching is the direction of your turn.

• ***See cones with peripheral vision***
The normal tendency when driving through a course outlined with cones is to drop vision to look at the cones. You will need to concentrate on seeing the cones with your lower fringe (peripheral) vision rather than to look at them with your central vision. Seeing the cones with your peripheral vision will also be the same usage that you need to see reference points with to position the vehicle's placement on the road.

• ***Accelerates*** at ***Transition Pegs***
The use of transition pegs provides a visual reference which scientifically pinpoints the ideal moment to apply acceleration in a timely manner to increase speed most efficiently. To keep the vehicle's roll forces in balance it is best to go from a braking action to an acceleration action without any hesitation.

• ***Target Area Searching*** when approaching the turn.
Target area searching is getting a mental picture of conditions to the target area for the purpose of evaluating your targeting path. This will give you an opportunity to detect any condition which could affect your movement into the intersection prior to making a turn.

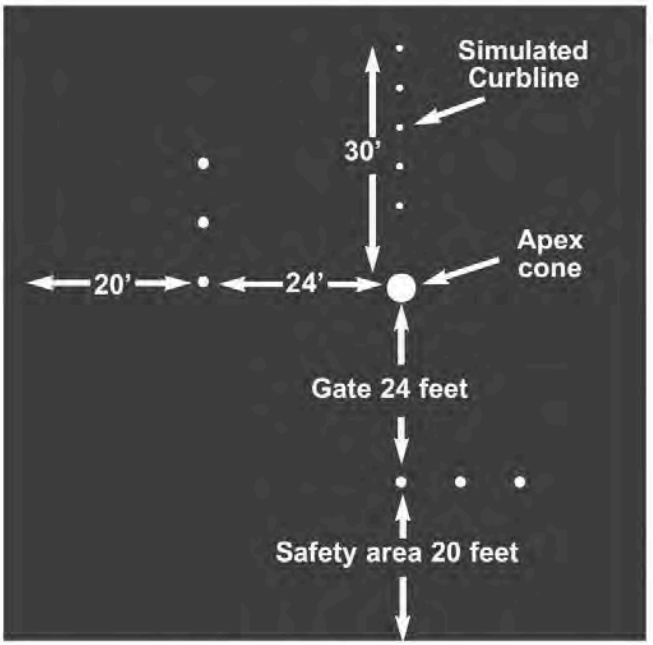
Set-Up B



Course Set-up

- Use two large barriers or cones to represent POT (Path Of Travel) Blockages. Have the two POTs as far apart as space permits.
- Leave at least 40 feet of empty space to the back-side of the cone. This is needed for space to turn around the cone and to be clear from any objects.
- Consider the slopes in the parking lot when you place the cones. When possible have turns made to the upgrade of the slope for the first four or five turns, then when you do the downgrade turns they will be more dramatic.

Set-Up J



Course Set-up

- Gates can be 18 feet to 36 feet wide. The standard width is 24 feet. When you want the car to be driven slower, you make the gate narrower.
- Use a larger cone for the apex and small 2-4 inch cones for the three limitation cones, which are spaced about 4 feet apart.
- At two gates add a 30' row of small cones spaced 3' apart to represent a simulated curbline for use of reference points when right turns are being made.

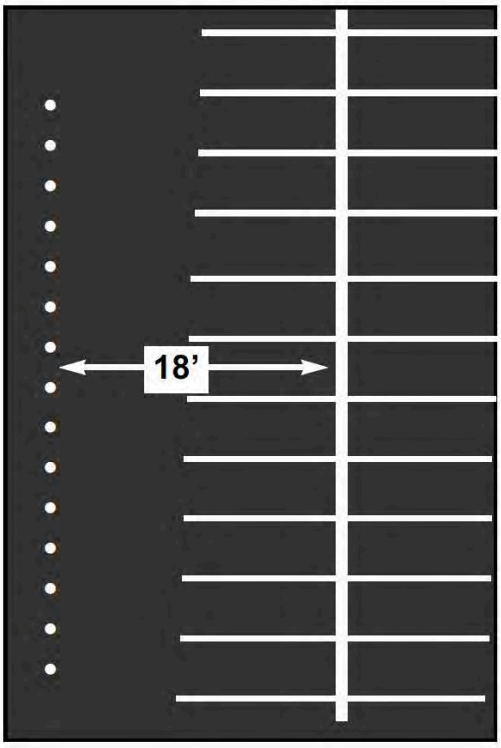
Set-Up

S M

Course Set-up

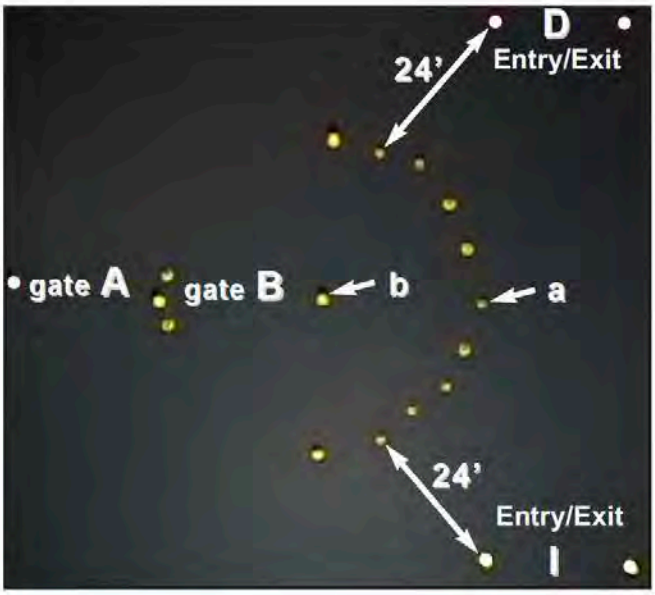
Use small two-inch motorcycle cones placed 18 feet from the dividing line of two parking rows, as illustrated below, to make an 18 foot wide lane. If there are no suitable lines on the pavement, use two rows of the small cones. Take note of the camber of the parking lot to design the slope, if any, into the exercise.

The reason an 18 foot wide simulated lane is used is to give the trainee a clearer image of the difference between the three lane positions being used.



Set-Up

Q P O N



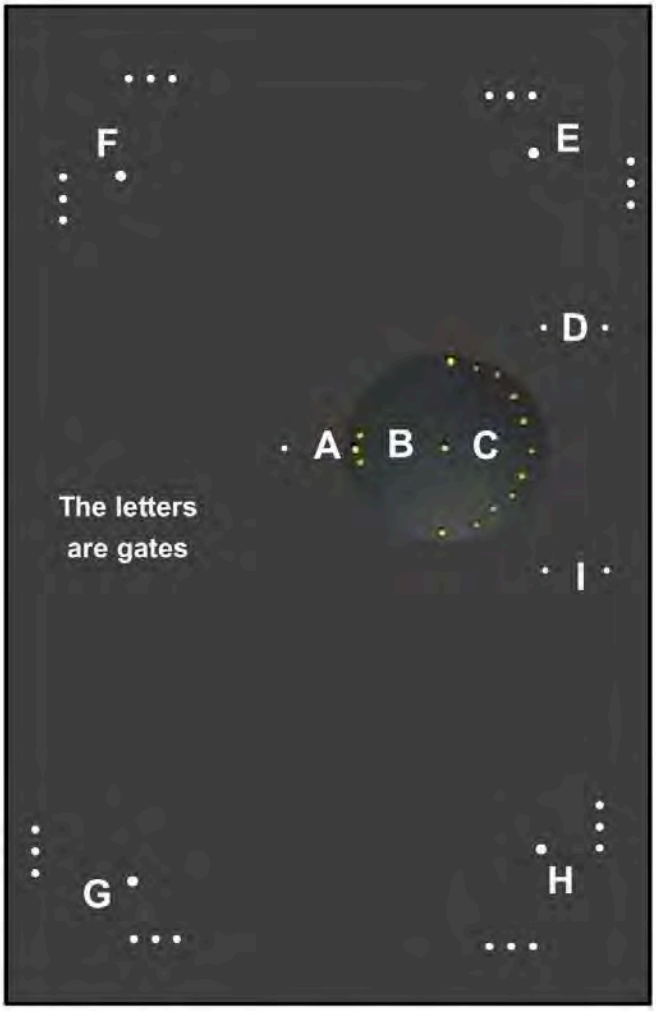
Course Set-up

Use 2-4 inch cones for the curve and 12 inch or larger cones for the exiting gates. For cone "b" use a large pylon 36" or higher.

To Set Up Course:

- Line up cone "a" with the inside of gates "E" and "H" from the Four Corners Set J.
- The inside cones for gates "D" and "I" should also be aligned with cone "a".
- Decide on what size radius to make the circle. The radius of the circle should be 18-36 feet depending upon the size of the parking lot and the speed you want the car to travel.
- If you have space begin with a 30 foot radius, which will give you adequate options for variation of speed selection.
- Measure the 30 foot radius from cone "a" to cone "b" to select the center point for the circle.
- Use a measuring tape, or rope, as a compass to mark the circumference of the circle. One person holds the rope at cone "b". Another holds the rope at the length of the circle's radius and walks around the circumference laying down a cone every 3-4 feet.
- Leave half of the circle without cones, as illustrated, to make it into gate "B".
- Make entry/exit gates "D" and "I" 24 feet wide.
- Take note of the camber of the parking lot to design the slope, if any, into the exercise.

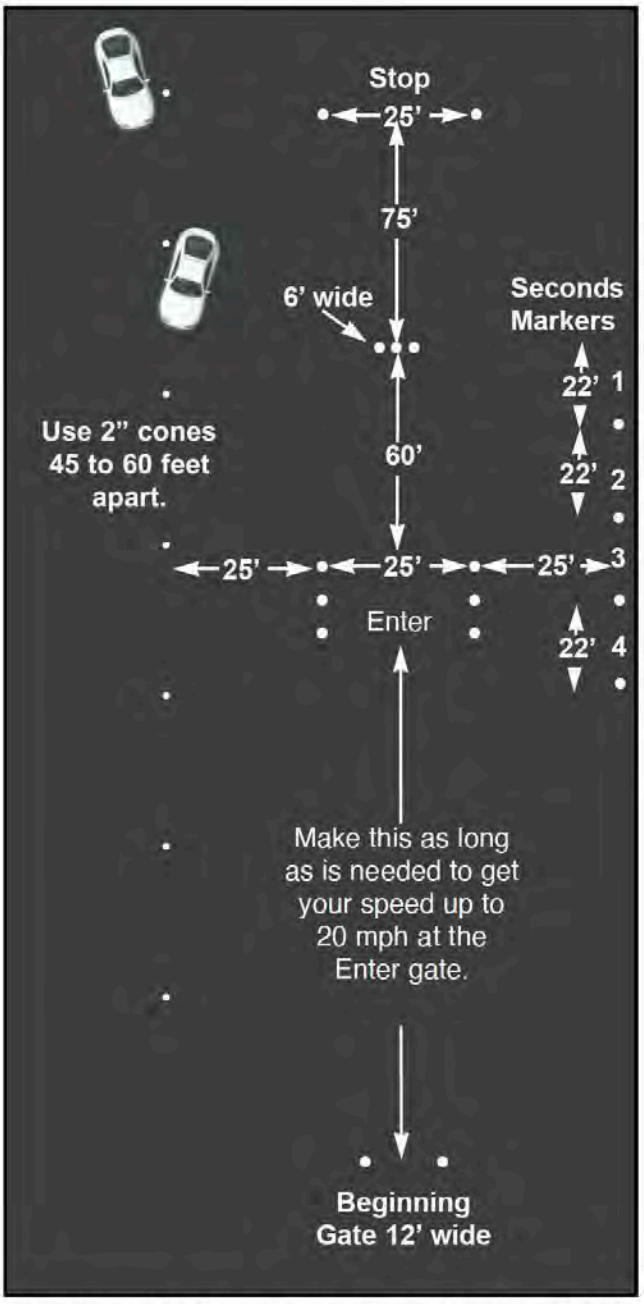
Set-Up R



To Set Up Course:

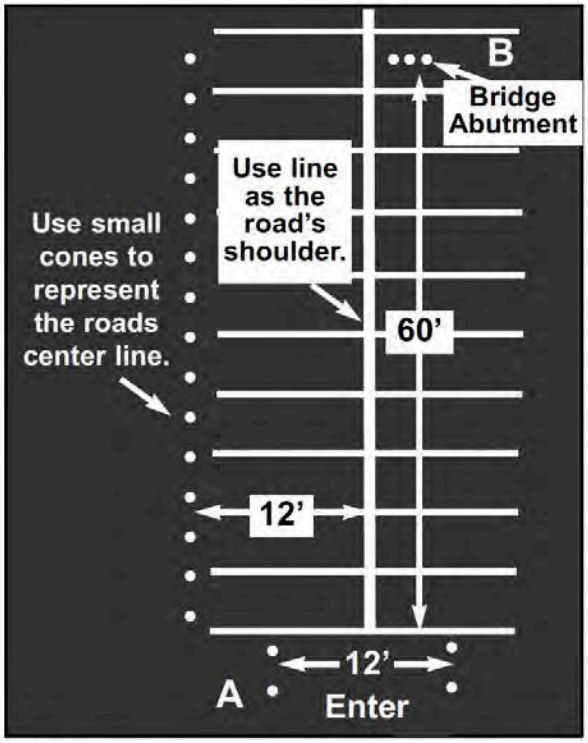
- Use the same set-up as that used for set N.

Set-Up V U T



The "Seconds Marker" cones indicate where 1, 2, 3 and 4 seconds of space is from the object to be avoided when traveling at 15 m.p.h.. Use 12-18" cones for the markers. Place a 10" number on each cone to show the seconds marker.

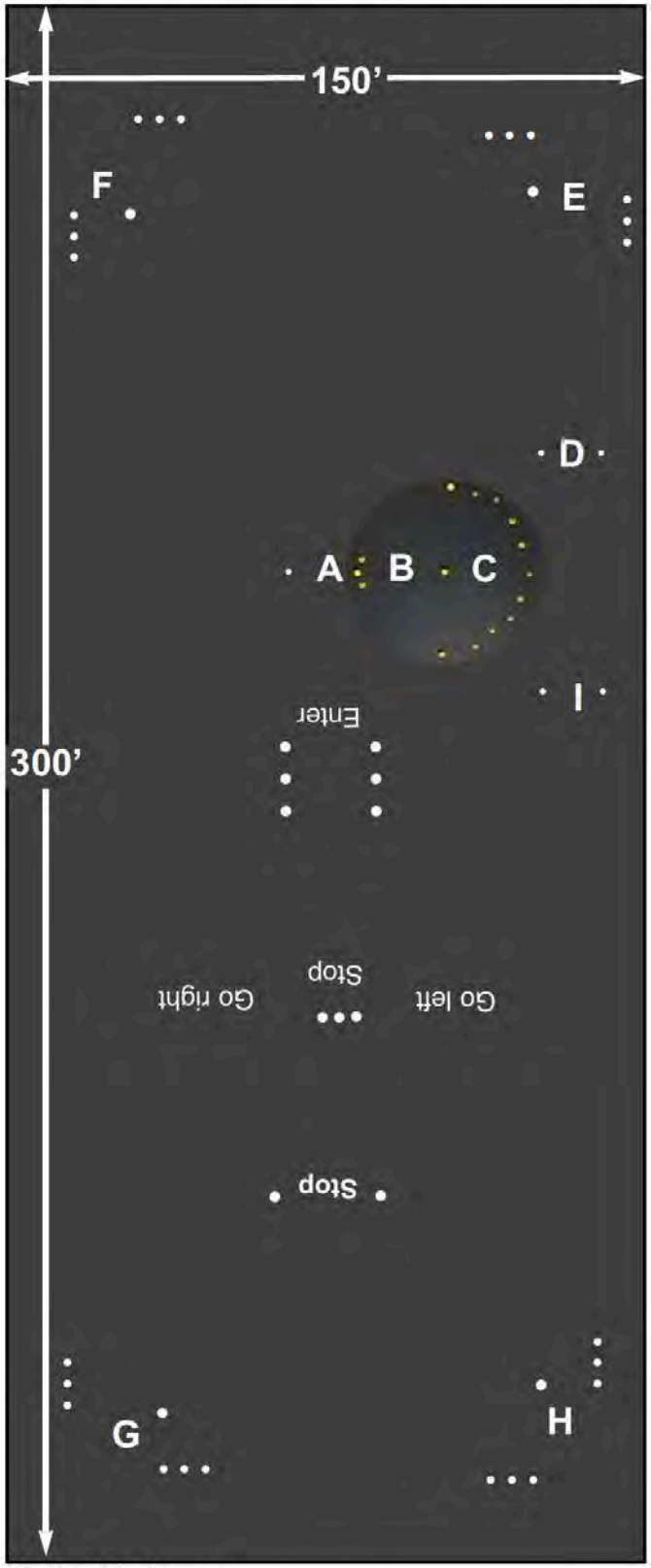
Set-Up W



To Set Up Course:

- The slope in the parking lot will affect the difficulty level of this activity. If you set up the course going up grade it will be much easier to get the car back in control than if the course is on a downgrade. You can run it both ways. After some approaches on the upgrade, you can switch the enter gate with barrier B to have it downgrade.
- If you set up the course with the downgrade going from left to right it will be much easier to recover than with the downgrade going from right to left because the car will be going upgrade on the cut to the left to get back in the travel lane. If the downgrade is going to the left, the car will be accelerating faster demanding a much quicker reaction from the driver's to get the car back on target.
- Every time you change the direction of the slope you are creating a totally new experience for the trainee, which is more like the real world. One never knows what the camber of the road, or the grade level is going to be if an off-shoulder recovery does become necessary.

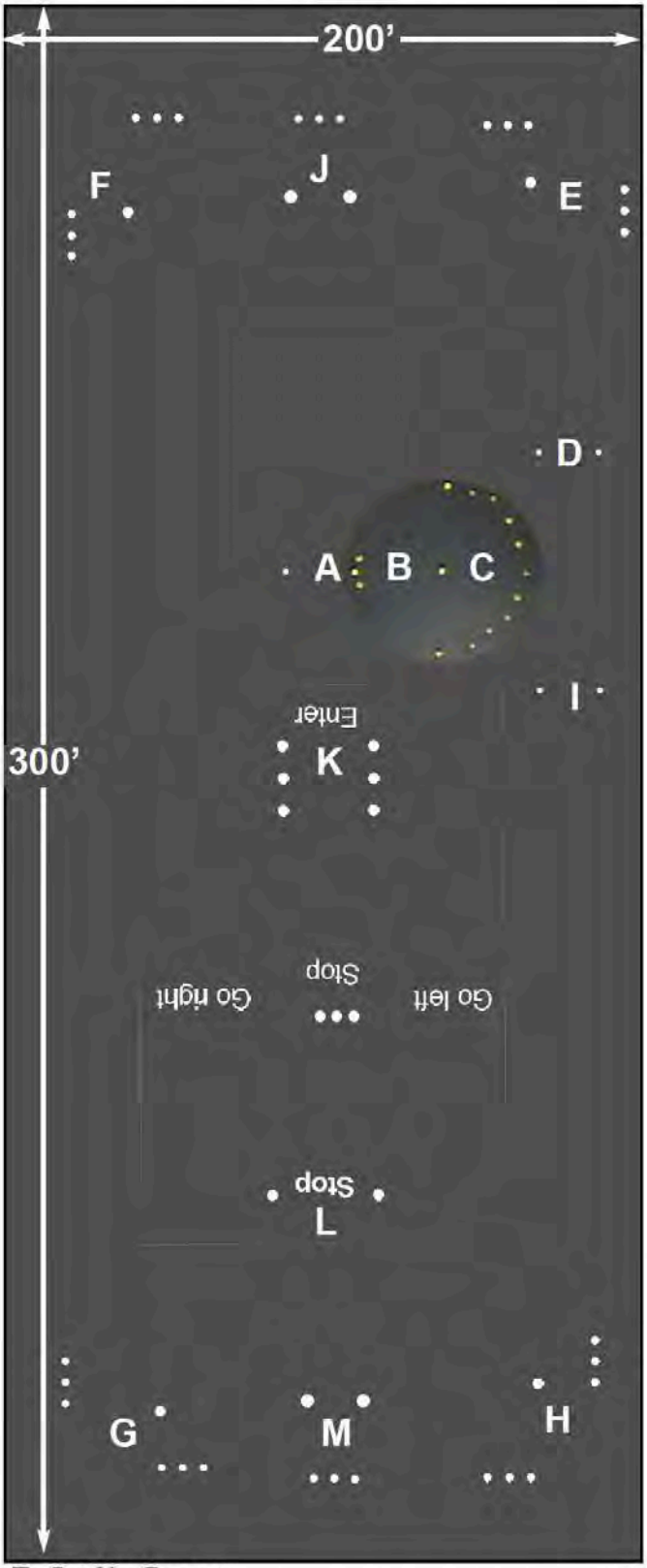
All Set-Ups



To Set Up Course:

- If you have a 150 feet by 300 feet training area, this is one example (not to scale) of how all the exercises can be set-up. The exercises that are not illustrated can be placed after these exercises are set-up so that they will not interfere.

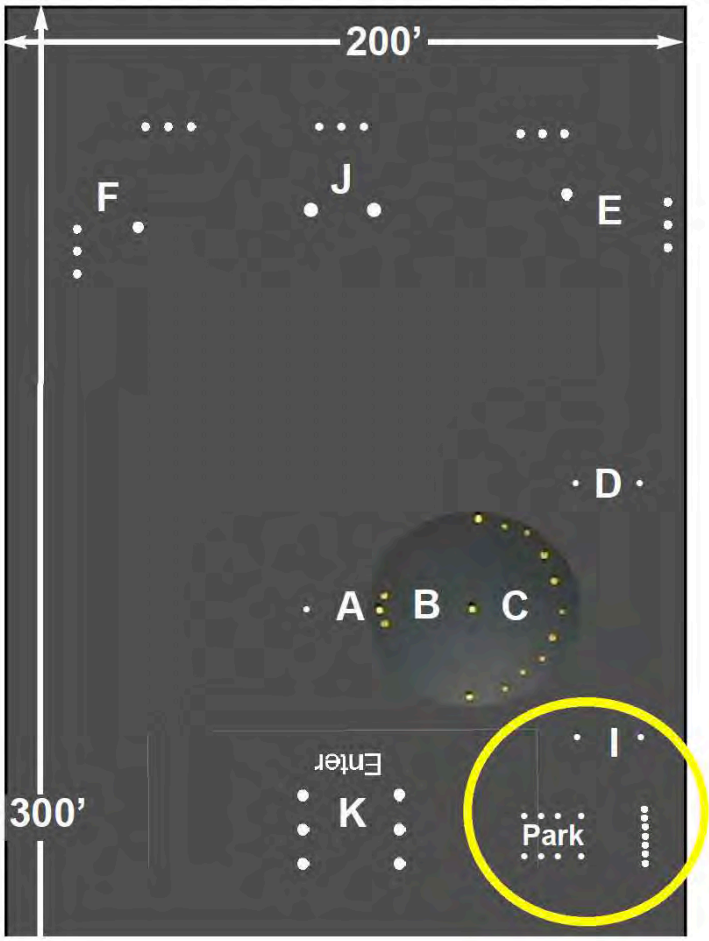
Set-Up Po 1

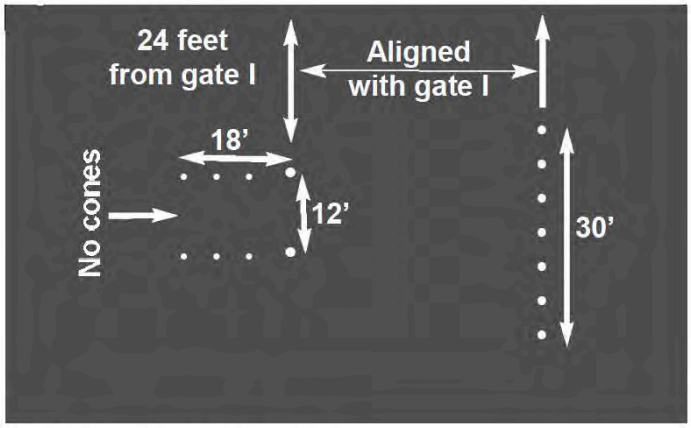


To Set Up Course:

- If you have a training area 200 by 300 feet , you can add the new gates (not to scale) to give more variety to the direction of travel. This exercise is used to conduct timed runs through a variety of increasing, decreasing and constant radius curves.

Set-Up Po 3





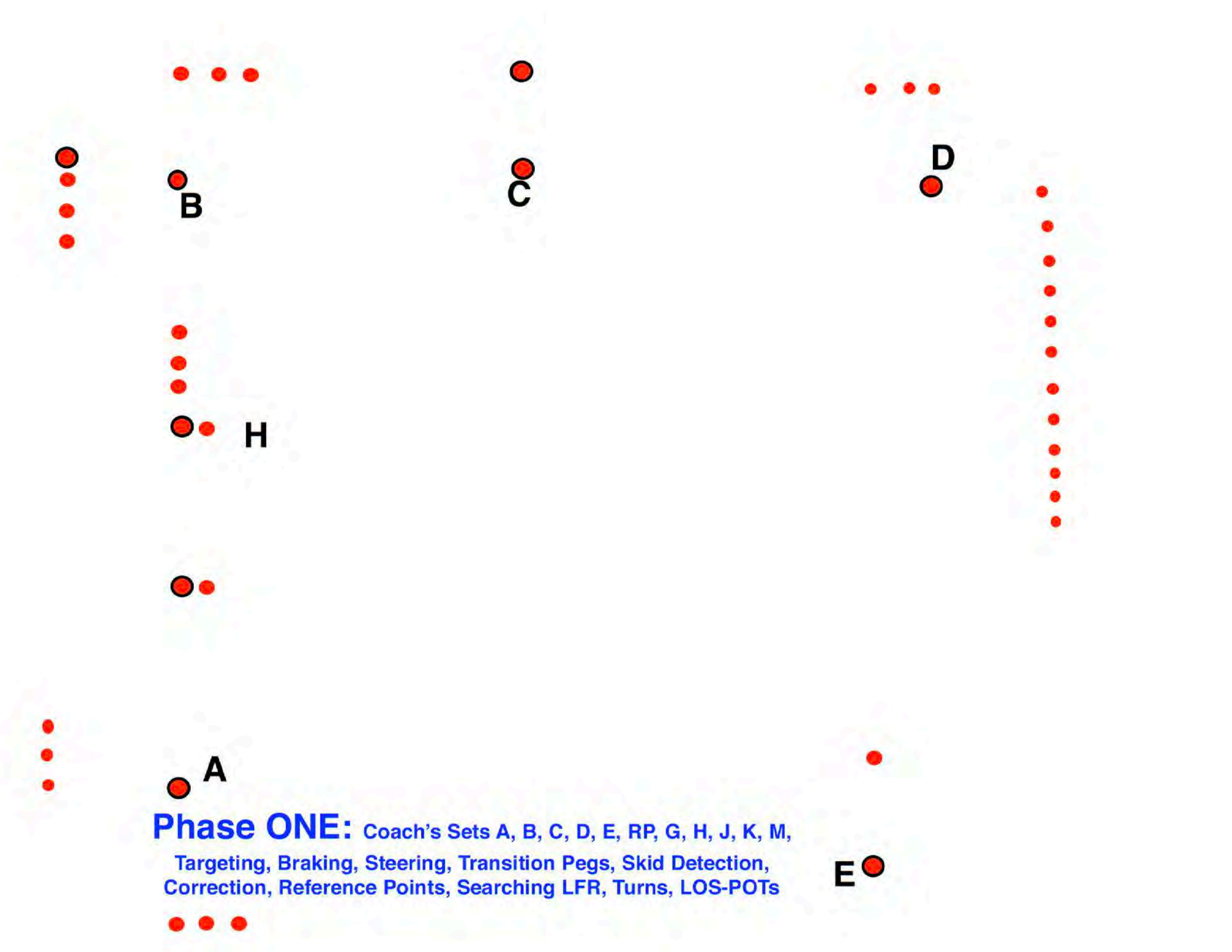
To Set Up Parking Space:

- Make a perpendicular parking space that is 12 feet wide and 18 feet deep.
- The two end cones should be 18-36 inched high.
- The other cones forming the sides of the space can be 2-4 inches high.
- There are no back cones, which allows the car to be driven straight through the parking space.
- The cones across from the parking space represent parked cars. No part of the car can cross over

In-Car Activity Sheets

A	Getting Ready to Drive
B	Vision & Motion Control
C	Transition Pegs Introduction
D	Targeting Practice-1
E	Targeting Practice-2
F	Demo of Transition Pegs
G	Simulated Late Exiting
H	You Put Car Off Target
I	Trainee Gets On/Off Target
J	Turns from a Stop
K	Turns While Moving
L	Turns Demonstration

M	Lane Positions
N	Constant Radius Circle - Control
O	Constant Circle - Entering Curves
P	Constant Circle - Demonstration
Q	Decreasing Radius and Exiting
R	Curves,Turns and Roundabouts
S	Precision Lane Change
T	Evasive Lane Change
U	Evasive Demo
V	Serpentine
W	Off Road Recovery
X	Vehicle Failures



Phase ONE: Coach's Sets A, B, C, D, E, RP, G, H, J, K, M, Targeting, Braking, Steering, Transition Pegs, Skid Detection, Correction, Reference Points, Searching LFR, Turns, LOS-POTs

Phase 1a *ebook Habits 1, 2, 3, 4, 5a*

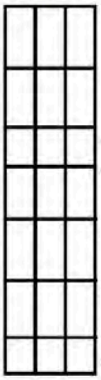
Skid Monsters: Sets A, B, RP, C, D, E

Rating: Name_____

√=Good, no coaching **X**=Needs practice

A Getting Ready to Drive

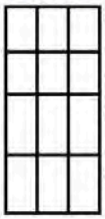
Driver Readiness



- *Butt-in* seating position (slide butt all the way back)
- *Seat adjustment*: height, distance (wrist even with top of steering wheel)
- *Safety belts on* all occupants
- *Heel of right foot in alignment with brake pedal*, ball of foot on brake
- Be able to *pivot foot from brake to accelerator* without lifting heel
- *Balanced hand position* on steering wheel; 9-3 preferred
- *Windows up* (no guillotines), doors locked

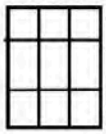
B Vision & Motion Control

Direct Vision to Target



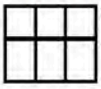
- *Checks the left, front and right zones before moving*
- *Turns head on target before steering*
- *Positions Car on Target*, avoids over correction of steering
- *Uses Central* to see target, *Fringe Vision* to see car to target)

Steering Techniques



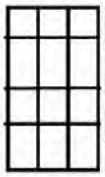
- Uses a *balanced hand position*
- Uses the *Hand-Over-Hand* or *Pull-Push* method effectively
- *Knuckles and thumbs on outside*

Acceleration Techniques



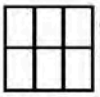
- *Sees open space before accelerating*
- *Sets Car into motion smoothly* (idle speed, then accelerate gradually)

Braking Techniques



- Applies the *brake with the right foot*
- Uses *controlled threshold braking* efficiently without locking the wheels
- Brings the vehicle to a *smooth stop.*
- Stops to see the base of the barrier to represent the *tire concept*

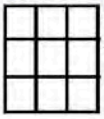
RP Reference Point Intro



- *Right Side Reference Point*
- *Forward Reference Point*

C Transition Pegs Intro

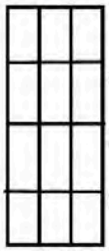
All the behaviors from set B will be used, plus:



- *Recovers steering at transition peg*
- *Increases acceleration at transition peg*
- Holds partial braking until at the *Transition Peg* then goes from braking to acceleration without delay.

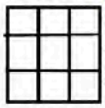
D Targeting Practice

Target Selection



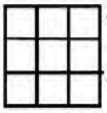
- *Checks the left, front and right zones before moving*
- *Turns head on target before turning steering wheel*
- *Positions Car on Target*, uses *transition pegs* effectively
- *Uses Central and Fringe Vision* (see target with central vision, see car to target with fringe vision)

Steering Techniques



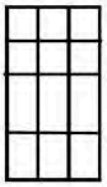
- Uses a *balanced hand position*
- *Hand-Over-Hand* and *Pull-Push*
- *Knuckles and thumbs on outside*

Acceleration Techniques



- *Sees open space before accelerating*
- *Sets Car into motion smoothly*
- Uses *transition pegs* effectively

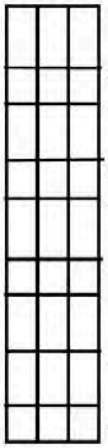
Braking Techniques



- Applies the *brake with the right foot*
- Uses *controlled threshold braking*
- Holds the brake until at the *transition peg* for turns made without stopping.
- Brings the vehicle to a *smooth stop*. (Release slight pedal pressure during last 2 seconds of braking to ease pitch force).

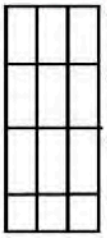
E Targeting-SKID Detection

Targeting From Stopped and Moving Positions – 180 degree turns



- *Searches left, front and right* zones before moving
- *Smooth Acceleration* on Starts
- On Moving Turns: *Applies brake effectively before steering*
- *Turns Head On Target* before steering
- *Detects and Corrects Skid yaw* immediately
- *Off pedals during skid* (no gas, no brake)
- *Keeps head turned towards target* during skid recovery
- *Steering recovery* initiated at *Transition Peg*
- On stops: *Smooth Braking*, no pitch felt

Braking Techniques



- Applies the *brake with the right foot* (unless physically restricted)
- Uses *controlled threshold braking* efficiently without locking the wheels
- On Moving Turns: *Keeps Partial Braking Pressure* until *Transition Peg*
- Brings the vehicle to a *smooth stop*

Phase 1b

Habits Phase One: 1, 2, 3, 4, 5, 6, 7, 9,10

Skid Monsters: Sets G, H, J, K, Los

Rating: Name_____

√=Good, no coaching **X**=Needs practice

G Simulated Late Exiting

Observe these Behaviors first

- Applies brake and ***reduces speed before steering to new target***
- ***Turns Head On Target*** before steering

Behaviors to Maintain Control

- ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
- ***Keeps head turned towards target*** during skid recovery
- On Moving Turns: ***Keeps Partial Braking Pressure*** until ***transition peg***
- ***Steering recovery*** initiated at ***Trans. Peg*** to avoid corrective steering
- ***Smooth Acceleration*** on Starts: no pitch
- On stops: ***Smooth Braking***, no pitch

H Car's Pulled Off Target

On Target/Off Target

- Foot off pedals as ***car moves off target***
- ***Keeps Head On Target*** as car gets off target
- ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
- ***Keeps head turned towards target*** during skid recovery

After recovery while Making Turn for New Target

- ***Keeps Partial Braking Pressure*** until ***transition peg***
- ***Steering recovery*** initiated at ***Transition Peg*** to avoid corrective steering
- ***Smooth Acceleration*** on Starts: no pitch felt forces felt
- On stops: ***Smooth Braking***, no pitch forces

J Turns from a Stop Sign

Left and Right Turns–Stopped Position

- ***Signals for turn 5 seconds*** before stop
- Begins ***braking effectively*** on approach
- ***Checks mirror*** when foot goes on brake
- ***Makes smooth stop***
- Uses side position ***reference point***
- Uses ***reference points*** for stop position
- Selects ***Target before beginning turn***
- ***Searches intersection*** for clear left, front, right zones
- Uses forward position ***reference point***
- ***Turns head*** onto target ***before moving***
- See cones with ***peripheral vision***
- ***Accelerates*** at ***Transition Pegs***
- Uses ***effective steering*** technique
- ***Detects and correct skid yaw*** (off pedals during skid)
- ***Timely Acceleration*** when zones are open

K Turns While Moving

Left and Right Turns–Moving Position

- ***Signals for turn 5 seconds*** before stop sign
- Uses ***Target Area Searching*** when approaching the turn
- Begins ***constant braking*** during approach
- ***Check mirror*** when foot goes on brake
- ***Brake controls speed before turning*** (Use of brake to reduce speed before turning prevents skid. Stay off brake during skid.)
- ***Searches intersection*** for clear L-F-R zones
- ***Turns head*** to new target area ***before steering***
- ***Holds partial braking*** (at least 30%) ***until Transition Peg***
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eye focused*** to target area
- Uses ***effective steering*** technique
- ***At Transition Peg,*** effectively ***accelerates w/o hesitation*** to straighten the car on target.

- **Demonstration of Premature Release of Brake for right or left turns**
- **Demonstration of No Use of Brake while making right or left turns**
- **Right and Left Turns Compare Speed of Success and Failure Approaches**

M Lane Positions

Introduction to Lane Position Usage

- ***Positions Car in LP2 accurately*** (demonstrates or explains which reference points are being used)
- ***Positions Car in LP1 accurately***
- ***Positions Car in LP3 accurately***

LOS LOS-POT Blockage

Use this for all situations that apply

- ***Knows LOS-POT*** means a blockage to your Line-Of-Sight and/or Path-Of-Travel
- Responds to ***LOS-POT with speed reduction***
- Responds to ***LOS-POT with lane positioning adjustment***

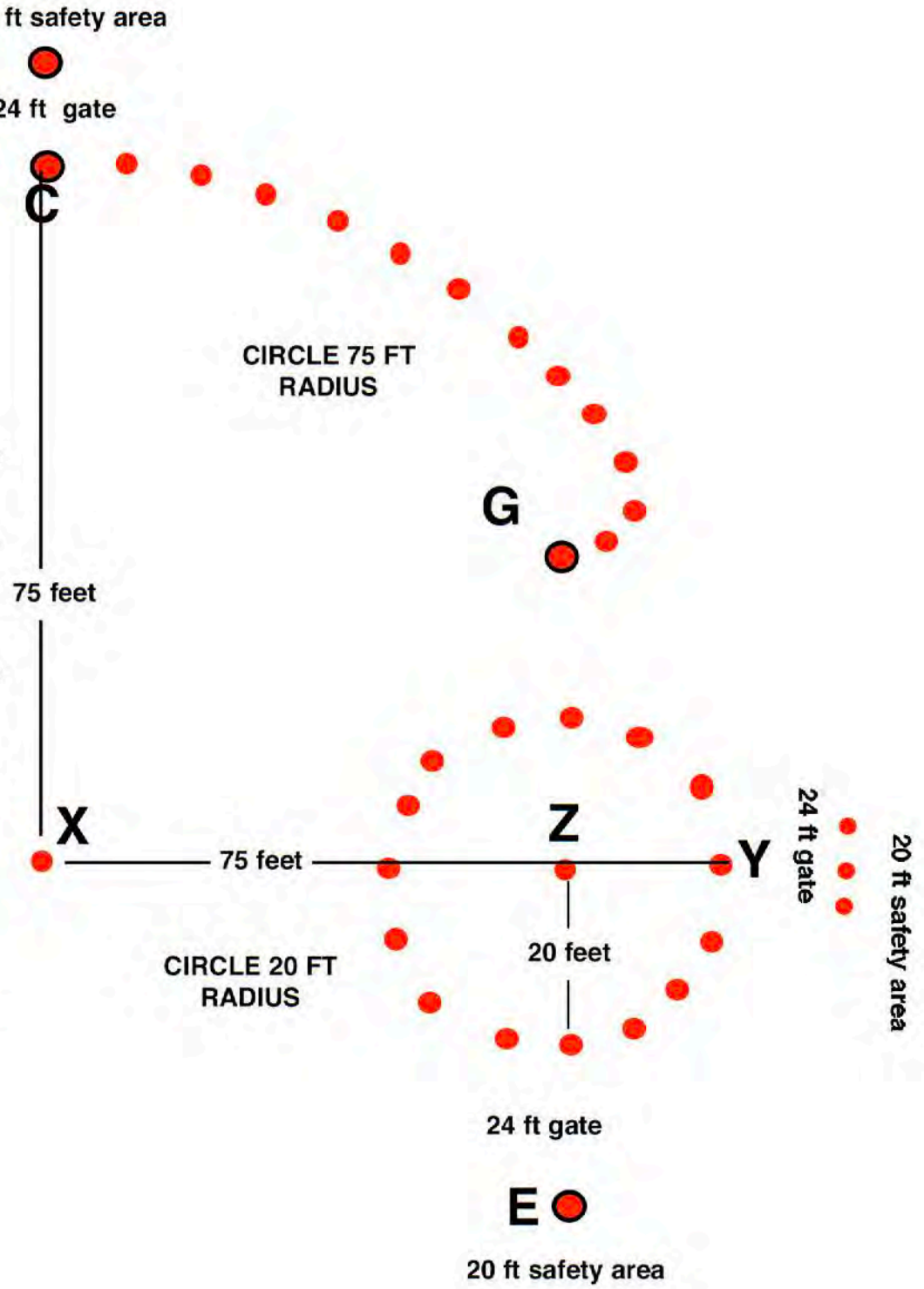
Key Behaviors to Cue for Turns

- **Select Target**
- **Search Left-Front-Right zones**
- **Turn Head**
- **Use Transition Peg**

Setting Up the Course

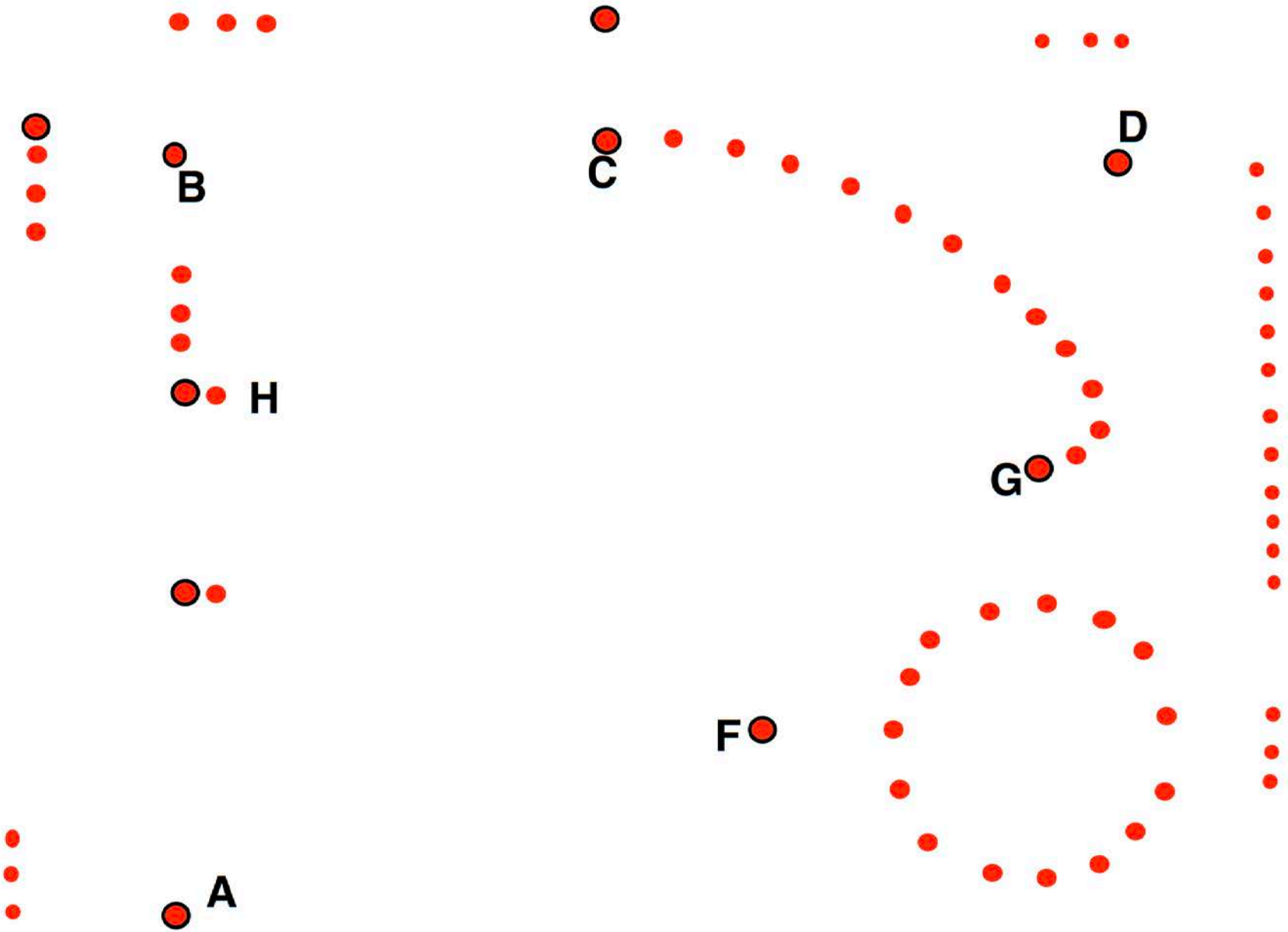
1. Begin by establishing a 20 foot safety perimeter.
2. Then measure 24 feet for C gate.
3. Then mark off 75 feet for the radius of the curve.
4. Mark off 20 foot safety area at gate Y.
5. Then measure 24 feet for gate Y.
6. Then add 75 feet towards cone X.
7. Cone X will be 119 feet from the edges.
8. Add another 20 ft, 24 ft, and 20 feet to include the size of the small radius, gate E and the safety area.
9. The total width needed for this design is 183 feet. If your area is smaller, reduce the radii of the curves, or the width of the gates.

10. Mark the placement of cone X. Use a measuring tape set to 75 feet with one person holding it at cone X and another person walking with the other end placing small cones to form the large circle.
11. Measure 20 feet from cone Y while in alignment with cone X to set the placement of cone Z.
12. The same process as used for the 75 foot radius will be used to form the 20 foot radius circle.
13. Gates E and G and F and Y, are in alignment with cone Z.
14. Once the course is laid out, cones X and Y are removed.
15. The other gates are then placed as space permits.



= 18 inch cones

= 2 inch motorcycle cones



Phase TWO: Review Sets A-M, Add sets N, O, Q, R

Entering and Exiting Curves, Decreasing Radius, Effects of Speed, Speed Control, Reduced Traction, Brake-Vision usage, Roundabouts entry, exiting.

Phase 2a *ebook Habits 5b, 6, 7, 8, 9, 10*

Skid Monsters: Sets N, O, Q

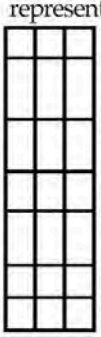
Rating: Name_____

√=Good, no coaching **X**=Needs practice

N Constant Radius Circle Speed Control

Establish Speed of 10 mph, after success increase speed to 12 mph

This activity begins in the non-monster mode. **After a few revolutions switching to the MONSTER mode** represents hitting "black ice."



- Establishes ***constant speed***
- ***Detects front of the car's movement*** off its constant radius (yaw angle)
- Has ***central vision focused through curve,*** not at yaw angle
- Uses ***fringe vision*** to keep car on course
- ***Takes corrective steering action*** without hesitation
- Keeps car in ***travel path***
- ***Controls speed*** of car

After correcting skid...

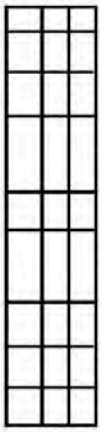
Stay close to the cones and keep increasing speed until you are not able to maintain a controlled yaw. **Repeat process with turns to the right.**

O Constant Radius Circle Entering Curves

Entering Curves

(LP=Lane Position)

This activity begins in the Monster Mode. You will start on a straight path before entering the "curve".

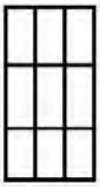


- Uses ***Target Area Searching*** when approaching the curve.
- Lane Position: ***Constant LEFT CURVES: approach LP3, apex LP1, exit LP1***
- Lane Position: ***Constant RIGHT CURVES: approach LP2, apex LP1, exit LP1***
- Effective use of ***speed control***
- ***Applies brake before turning*** (On brake to prevent skid, off brake during skid)
- ***Turns head to look into curve***
- ***Detects and corrects skid yaw***
- Uses ***effective steering technique***

Q Decreasing Radius Curve and Exiting Curves

Decreasing Radius Curve

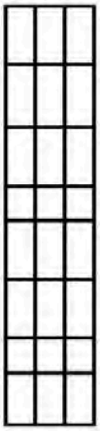
- **Part 1:** You will travel in a constant radius curve. After driving around the circle a few times at the maximum controllable speed, you will turn into the inside gates of the curve.
- **Part 2:** You will do the same activity at a slower speed around the constant radius before turning into the decreasing radius gates. Compare the control you have when speed is not excessive.



- ***Detects front of the car's movement*** off its constant radius (yaw angle)
- Has ***vision focused through curve***, not at yaw angle
- ***Takes corrective steering action*** without hesitation

Exiting Curves

This activity begins in the Monster Mode. After traveling at least one or two times around the circle you will exit the circle, which will represent exiting a curve.



- Sets up correct lane position in preparation for exiting
- Lane Position for ***LEFT CURVES: apex LP1, exit LP1***
- Lane Position for ***RIGHT CURVES: apex LP1, exit LP1***
- Effective use of ***speed control***
- ***Turns head to new target area*** before steering
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg*** (corner post, or, rear view mirror)

Phase
2b Skid Monsters: Set R

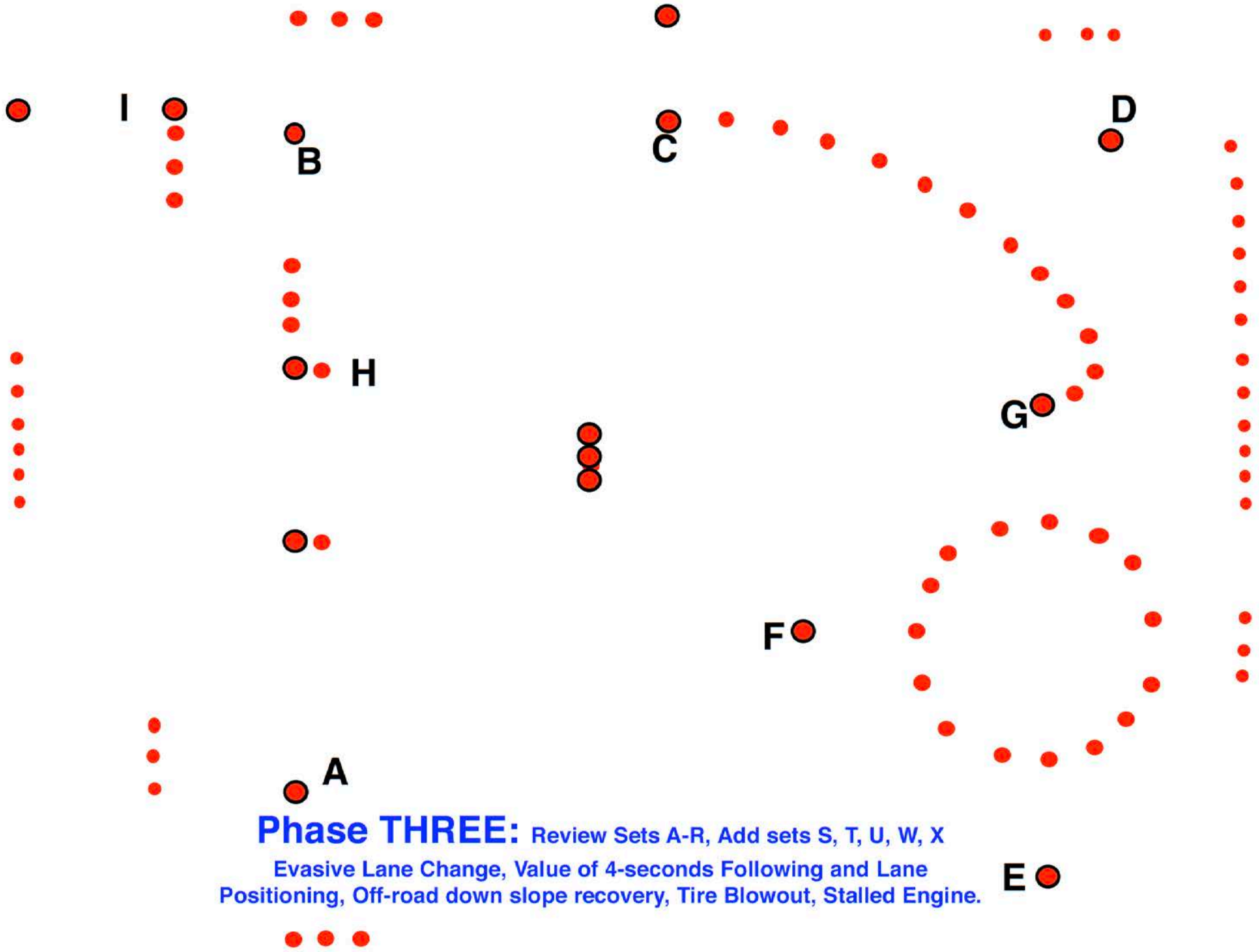
Rating: Name_____

√=Good, no coaching **X**=Needs practice

R Curves, Turns and Roundabouts

Compare Speed of Success and Failure

- Uses ***Target Area Searching*** when approaching the curve.
- LP for Constant ***LEFT CURVES: approach LP3, apex LP1, exit LP1***
- LP for Constant ***RIGHT CURVES: approach LP2, apex LP1, exit LP1***
- Effective use of ***speed control***
- ***Applies brake before turning*** (On brake to prevent skid, off brake during skid)
- ***Turns head to new target area*** before steering
- When Braking is needed, ***holds partial brake pressure*** of 20-30% (trail braking) ***until at Transition Peg*** (corner post, rear view mirror)
- ***Detects and corrects skid yaw*** without hesitation
- ***Keeps head and eyes focused*** to target area
- Uses ***effective steering technique***
- With car in control, ***goes from brake to acceleration effectively*** without hesitation when car is ***at Transition Peg*** (corner post, rear view mirror)
- Entering and leaving **Roundabouts** effectively. (travels counter clockwise at all times)
- Experiences ***effects of curve's radius*** on speed control
- Experiences ***effects of road grade and camber*** on car control
- Experiences ***effects of One or Two Excessive miles per hour*** on control



Phase THREE: Review Sets A-R, Add sets S, T, U, W, X

Evasive Lane Change, Value of 4-seconds Following and Lane Positioning, Off-road down slope recovery, Tire Blowout, Stalled Engine.

Phase
3a

ebook Habits: Review all 1-10

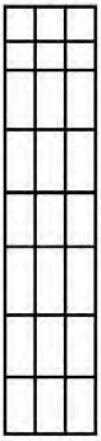
Skid Monsters: Set T, Z

Rating: Name_____

√=Good, no coaching **X**=Needs practice

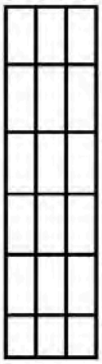
T Evasive Maneuver

Behaviors For Evasive Lane Change



- ***Holds the steering*** with both hands for a ***9-3 position***
- ***Focuses on target area*** — not on what is being avoided
- Makes ***initial steering*** without taking hands off the wheel
- ***Stays off the brake and the gas pedals*** while steering
- ***Takes counter steering actions*** to keep roll axis in balance
- When car goes into a skid, ***turns steering rapidly towards target***
- When ***steering is controlled***, applies ***brake or acceleration*** as needed

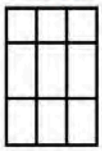
Behaviors For Evasive Braking



- ***Checks rearview mirror*** when foot goes on the brake
- ***Holds the steering*** with both hands for a ***9-3 position***
- ***Focuses on target area*** — not on what is being avoided
- For ***ABS brakes: applies firm pressure*** and holds pedal
- No ABS brakes: ***uses controlled threshold braking*** without locking the wheels
- If car skids, releases brake pressure and ***turns steering rapidly towards target area***

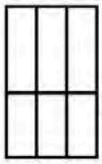
U Evasive Demonstrations

Variables You Will Experience in this Set



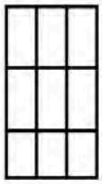
- Effects Speed has upon car control
- Effects Lane Positioning has upon steering inputs
- Effects Following Time has upon taking an evasive braking or steering action.

Demonstrates Value of Four-Second Following Time



- Experiences the ***effect following time*** has upon ***car control for evasive steering and braking***
- Experiences the ***effect following time*** has upon ***reducing driver stress***

Demonstrates Value of Lane Positions



- Experience the value of an ***early detection of an LOS-POT blockage***
- Experiences the importance of using the ***proper lane position***
- Experiences the importance of ***minimizing steering action***

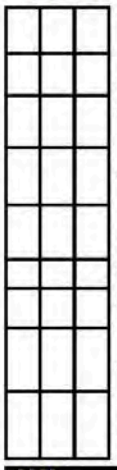
Phase
3b Skid Monsters: Wa, Wb, Xa, Xb

Rating: Name_____

√=Good, no coaching **X**=Needs practice

Wa Off Road Recovery

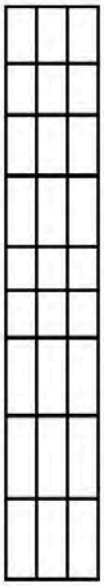
Down Slope Shoulder: Off-Road



- ***Holds the steering firmly*** with both hands for a ***9-3 position***
- ***Look for targeting path*** down the slope
- ***Releases acceleration, steer away from road*** and ***brake lightly*** if possible.
- If roll forces are felt, ***turns steering more down the slope***
- Bring vehicle to a complete stop
- Relax
- Slowly move and turn perpendicular to the road as possible to climb up the slope
- Stop before entering the roadway to ***search for a gap or hole to enter.***
- When able enter traffic flow.

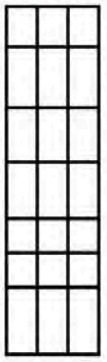
Wb Off Road Recovery

Level Shoulder: Off-Road Recovery



- ***Holds the steering firmly*** with both hands for a ***9-3 position***
- ***Releases acceleration*** pressure and ***stay off the brake***
- Moves into ***Lane Position 5*** to ***straddle the pavement edge***
- Checks ***left-rear zone*** and ***signal for re-entry*** into traffic (when possible)
- Focuses on the ***target area***
- ***Cuts steering wheel a quarter turn towards pavement*** without taking hands off the wheel
- Immediately ***takes counter steering action towards target area*** to keep roll axis in balance
- If car goes into a skid, ***turns steering rapidly towards target***
- When ***steering is controlled***, resumes acceleration, or initiates braking

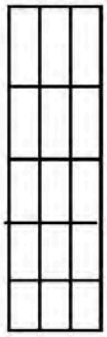
You Should be able to Experience:



- The effects of a ***down slope shoulder*** and the limited options you have
- The importance of having ***targeting path awareness*** to get back onto the road
- The ***effect speed has*** upon control
- The ***importance of two hands on wheel*** during initial steering action
- The ***effects of excessive steering*** inputs
- Proper ***targeting techniques*** for control
- Proper techniques for ***initial steering and recovery behavior*** to re-enter the pavement

Xa Vehicle Failures

Tire Blowout



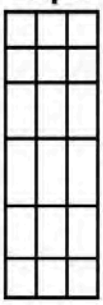
- Foot comes off the pedals as the steering wheel is moved off target to ***simulate the tire blowout***
- ***Keeps Head On Target*** as steering wheel moves car off target
- ***Detect and Correct Skid yaw*** immediately (stay off pedals during skid recovery)
- ***Keeps head turned towards target*** during skid recovery
- With car back in control, ***selects a safe location to deal with the failed tire***

Demonstration of Power Steering Loss

- Have the car going in a circle at 15 mph.
- Turn the key off.
- Steer left and right as space permits.
- Experience how the steering wheel feels.
- Use open palm shift into neutral.
- Restart engine.

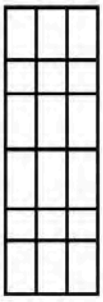
Xb Vehicle Failures

Open Palm Shift into Neutral

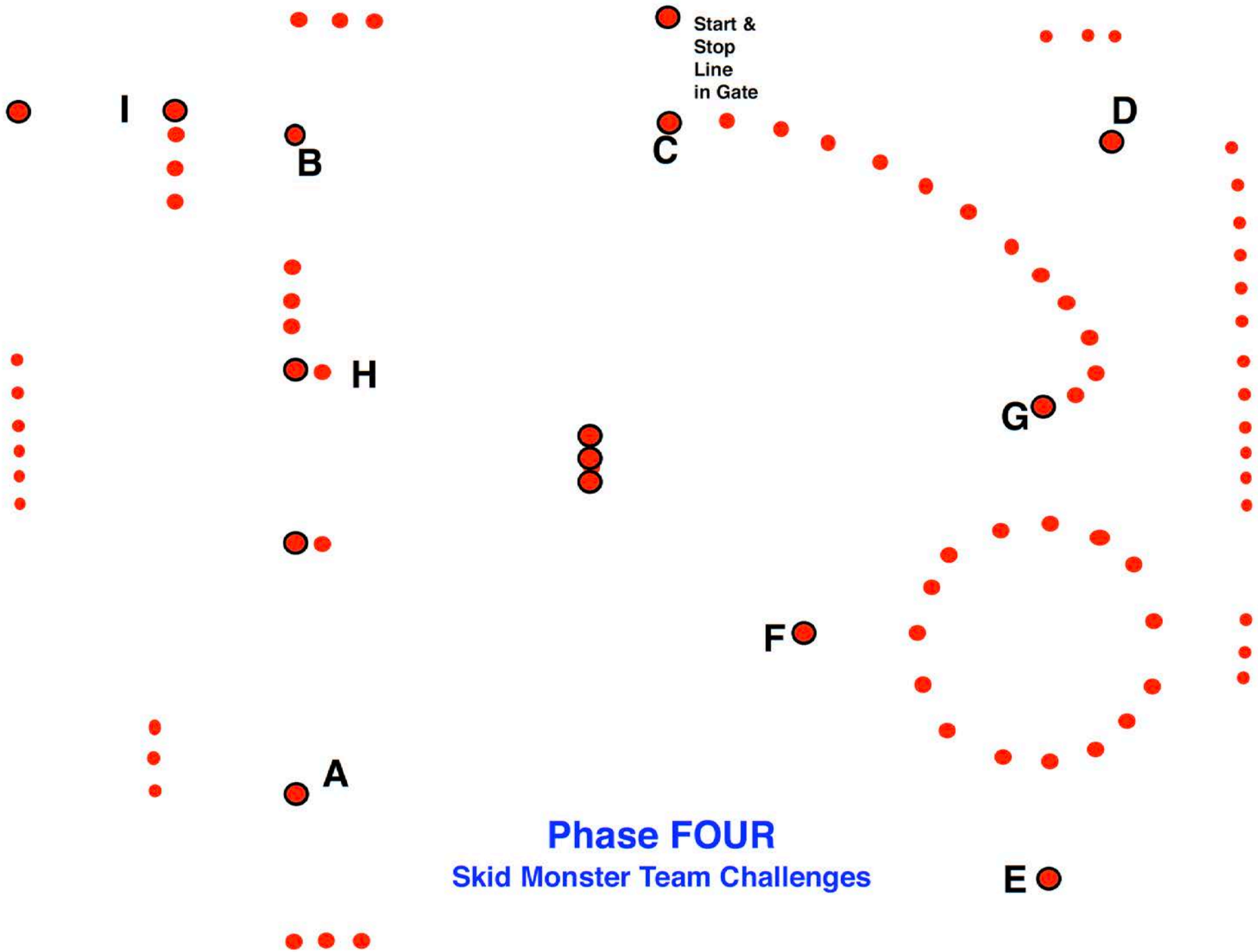


- Use shifter on the steering column
- Places ***hand over shift knob***
- With the ***shift knob in the palm,*** have the fingers extended, not gripping
- The ***palm presses down*** on the shift knob and ***pushes it forward*** towards the dash
- This action will allow ***the shift to stop in neutral***
- ***There is no need*** to look at the indicator

Stalled Engine



- ***Steer firmly*** during turns or ***hold steady*** on a straight away.
- Shift into neutral using ***open palm.***
- Quickly turn the key to ***restart engine*** without a need to come to a stop.
- ***Shift to Drive*** by pulling the shifter down one notch.
- Continue to drive your course.
- If the car doesn't start, ***look for escape path*** while there is still momentum.



Phase FOUR

Skid Monster Team Challenges

Phase 4 Skid Monsters: Skid Monster Challenge

Skid Monster Challenge

- There will be 12 challenges.
- There will be three or four teams (**POLG**).

Pink.....A team **O**range..B team
Lime... C team **Green**.. D team

RULES:

1. The driver of car one must go through all exercises on the course two times within a three minute time period.
2. The driver of car two will begin 15 seconds later and must follow the same correct path that car one takes without getting closer than 4 seconds to car one.
3. If car two finishes in less than 15 seconds, without more penalties than car one, it is the winner of that challenge.
4. Members of the team not in the challenge serve as timers and referees.

1	2	3	4	5	6
A1	C1	B2	B3	A2	C2
B1	A2	C2	A3	C3	B3

3 teams

7	8	9	10	11	12
C3	A3	B1	A	B	C
B2	C1	A1	C	A	B

Teams select drivers

1	2	3	4	5	6
A	C	B	D	B	C
B	D	C	A	D	A

4 teams

7	8	9	10	11	12
D	A	D	A	B	C
B	C	A	C	D	B

WINNERS

1	2	3	4	5	6	7	8	9	10	11	12

Penalty Points: Each driver begins with 100 points.
Place a √ for each second a violation occurs

Car 1 - 2 Team_____

Circle starting position

SKID MONSTER CHALLENGE

1. Starts from Stopped Position
_____ Safety belt not within 3 seconds -5
_____ Smooth Start not made -2
_____ Early start before flag - 5/sec

2. Intersections
_____ Failure to yield -5
_____ Not Searching L-F-R -2/search

3. Stops
_____ Smooth Stop not made- 2
_____ Complete Stop not made -2
_____ Forward Reference 6+ inch off -2

4. Following Time/Space
_____ Not keeping 4-seconds -2/sec
_____ Not stopping to see tires -2

5. Round About
_____ Blocking round about -5
_____ Going wrong way – **Disqualified**

6. Curves
_____ Wrong Drive Line -2
_____ Head not turned -2

7. Evasive
_____ Failure to keep head on target -5
_____ Applying brake before clearing obstacle-5

8. LOS-POT Blockage
_____ Failure to search Left, Front, Right -2
_____ Failure to respond (stop) -5
_____ Failure to get best LP -5

9. Rule Violation
_____ Not belted before moving – **Disqualified**
_____ Failure to follow car one – **Disqualified**
_____ Hitting a Cone or Barrier – **Disqualified**
_____ Going Outside Course – **Disqualified**
_____ Wrong direction in roundabout – **Disqualified**
_____ Failure to yield after spinout – **Disqualified**
_____ Not stopping when flagged -2/sec
_____ 360 degree improperly executed -5 points

_____ **- penalty points** _____ **+ 2 points/sec**

100 points +/-_____ = _____

Penalty Points: Each driver begins with 100 points.
Place a √ for each second a violation occurs

Car 1 - 2 Team_____
Circle starting position

SKID MONSTER CHALLENGE

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_____ Wrong Drive Line -2
_____ Head not turned -2

7. Evasive
_____ Failure to keep head on target -5
_____ Applying brake before clearing obstacle-5

8. LOS-POT Blockage
_____ Failure to search Left, Front, Right -2
_____ Failure to respond (stop) -5
_____ Failure to get best LP -5

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_____ 360 degree improperly executed -5 points

_____ - penalty points _____ + 2 points/sec

100 points +/-_____ = _____

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Car 1 - 2 Team_____
Circle starting position

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_____ 360 degree improperly executed -5 points

_____ - penalty points _____ + 2 points/sec

100 points +/-_____ = _____