## BASIC RIDERCOURSE

## RANGE CARDS

$60^{\prime} \times 170^{\prime}$
Alternate Layout
6-Student RERP

## Time

30 min

## Evaluations

2 U-turn / Swerve
Quick Stop
4 Swerve

## Range Equipment

- Cones
- Fuel/Oil
- Clipboard
- Fire Extinguisher
- First Aid Kit
- Stopwatch
- Whistle
- Air Tank/Pump
- Obstacles (four 2"x 4"s)
- Trash Bags
- Extra Protective Gear
- Tools


## Range Materials

- Range Cards
- Skill Test Score Sheet
- Incident Report Form
- Emergency Numbers
- Pens/Pencils


## Pre-Ride Information

- Check Protective Gear
- T-CLOCS of training motorcycles (including student owned)
- Check Surface Conditions

Disclaimer: These Basic RiderCourse ${ }^{5 \mathrm{M}}$ Range Cards are to be used only by MSFcertified RiderCoaches.

## RANGE RULES:

- Do not practice without RiderCoach permission.
- Always wear proper protective gear when seated on the motorcycle.
- Know the location of the engine cut-off switch and how to use it.
- Keep the clutch "covered" during early skill development (first riding day).
- Keep a wrist flat position on the throttle.
- Always keep a margin of safety, and check all around before moving out.
- Do not pass other riders unless directed to do so.
- If you have a problem, move out of the path of travel. A RiderCoach will assist you.
- Stop smoothly in position if you see or hear a group stop signal.
- If you do not understand an exercise, or become too uncomfortable to ride safely, notify a RiderCoach.


## 30 minutes - No Demo, Static Practice

01 Assign a motorcycle to each rider

- Help each rider with protective gear
- Ensure size/fit of protective gear and motorcycle

02 Read objectives

- To identify location and operation of important controls and parts
- Use controls smoothly
- Use side stand fully
- Squeeze front brake when mounting/dismounting
- Use good posture
- Use FINE-C and proper shutdown procedures

03 Provide instructions as riders perform

- Walk around motorcycle identifying controls
- Check fuel valve positions
- With protective gear on, mount motorcycle
- Raise stand and assume good posture
- Lean motorcycle left/right to feel its weight

04 Identify and manipulate the following

- Handlebars
- Full left, full right, center
- Press and lean right, center
- Press and lean left, center
- Throttle
- Check operation
- Roll-on full, roll-off
- Roll-on half, roll-off
- With wrist flat, roll-on quarter turn, roll-off
- Front brake lever
- Squeeze and release
- Practice roll-off/brake squeeze
- Engine cut-off switch
- Electric start button
- Clutch lever
- Note: Squeezing the clutch lever removes engine power from rear wheel; squeeze the lever promptly if control is lost
- Choke
- Fuel supply valve
- Shift lever
- Rear brake pedal
- Ignition switch, turn ON
- Turn signals
- Lights high/low beam
- Horn
- Ignition switch, turn OFF
- Side stand fully down

Dismount, then remount
gine off: Practice finding neutral
(show neutral signal)

- Roll motorcycle in neutral
- Squeeze clutch, shift to 1st gear, slowly ease out clutch Roll motorcycle (shouldn't roll)
- Squeeze clutch, shift to neutral, slowly ease out clutch Roll motorcycle (should roll)
- Squeeze clutch, shift to 2nd gear, slowly ease out clutch Roll motorcycle (shouldn't roll)
- Squeeze clutch, shift to neutral, slowly ease out clutch

Roll motorcycle (should roll)

- Repeat as needed
- Side stand fully down

07 Dismount, then remount
08 Review engine start/stop procedures

- Show start/stop signals

09 Have riders start/stop engine on signal

- Use FINE-C to prepare to start engine
- Fuel valve
- Ignition
- Neutral
- Engine Cut-off
- Choke/Clutch
- Start engine and allow it to warm
- Adjust choke as necessary
- Practice throttle roll-on/roll-off
- Stop engine (Thumb/Key/Valve)
- Side stand fully down

10 Dismount

11 Debrief

- Reinforce value of squeezing clutch lever and using the brakes to maintain control

12 Prepare for next exercise

- Have riders mount and straddle walk to start position for next exercise
- Practice front brake operation
(multiple opportunities)
- Practice backing up while looking over shoulder

01 Read objective

- To be able to use the friction zone with control

02 Explain range setup

- Individual lanes back and forth across range marked by 2 cones

03 Provide instructions
Part 1 - Group Rocking

- On signal, mount and start engine
- On signal, squeeze clutch lever and shift to 1st gear
- On signal, use friction zone to rock back-and-forth in place repeatedly
- Do not release clutch lever fully
- Use minimal throttle

Part 2 - Power Walking

- On signal, power walk in path of travel
- Keep feet on ground, not on footrests
- Upon reaching target cone, stop using front brake smoothly, shift to neutral (slowly easing out clutch lever to be sure), and raise left hand
- On signal, turn motorcycle around
- On signal, shift to first and repeat power walk, stopping next to target cone
- Repeat as signaled

Part 3 - Riding

- On signal, ride from start cone to target cone
- Power walk until speed is stable
- Use both brakes to stop, putting left foot down first

04 Provide demo of posture and 3 parts

- Note evaluations and provide signals
- Keep right wrist flat and use steady throttle
- Keep clutch lever covered
- Keep head and eyes up
- Keep knees against tank
- Don't cover front brake lever while using throttle
- Maintain a safety margin

05 Provide simulated practice of friction zone

06 Conduct exercise as a group

- During Part 1 - Group Rocking, watch riders needing individual coaching. Ensure all riders have good friction zone control before moving to Power Walking

07 Stage riders

- In middle of range in direction to permit left turn to start next exercise

08 Debrief


01 Read objective

- To be able to start out and stop with precision and control

02 Explain range setup

- 2 lanes of cones on each side of range, for a total of 4 lanes

03 Provide instructions
Part 1 - Stop at each cone

- On signal, power walk to start cone designated
- On signal and when your next stop cone is open, start out and stop smoothly
- Power walk until speed is stable
- When at last cone in row, check for opening in either lane at other side, and power walk to next cone (watch for other riders)
- Repeat until signaled otherwise

Part 2 - Stop at last cone

- On signal and when last cone is open, start out from the first cone and stop smoothly at last cone

04 Provide demo

- Note evaluations and provide signals
- Keep head and eyes up
- Start and stop smoothly and precisely
- Coordinate clutch/throttle use
- Power walk until speed is stabilized
- Maintain path of travel
- Use both brakes to stop
- Square handlebars at stop
- Put left foot down first at stops
- Maintain a safety margin

05 Conduct exercise

- When riders demonstrate control in Part 1, stop riders at the beginning of each line
- Conduct Part 2

06 Stage riders at a start point for Exercise 4

07 Debrief


01 Read objective

- To be able to shift gears and stop smoothly

02 Explain range setup

- Clutch control lanes on the far side of range.
- A shift/stop lane on near side of range
- A turn after stop

03 Provide instructions

- On signal, ride through the clutch-control lanes, and stop at the beginning of the shift/stop lane
- Keep a safety margin between riders while riding and while in line
- On signal and one at a time, ride down the lane, shifting to 2 nd gear, releasing clutch
- As you approach the stop point, shift to 1st gear and stop between last set of cones
- Do not release clutch after downshifting to 1st gear
- Remain stopped for coaching
- On signal, slowly ride through turn and proceed through the clutch control lanes
- Turn and get in line
- On signal reverse exercise.
- On signal, ride to group parking area

04 With riders at stop point, provide demo

- Include parking area
- Note evaluations and provide signals
- Keep eyes up
- Shift smoothly and precisely
- Stop smoothly using both brakes at the designated point
- Do not release clutch after downshifting
- In clutch control lanes, work to improve slow speed clutch control and balance
- Use outside-inside-outside path in perimeter turns
- Maintain a safety margin

05 Provide simulated practice of shifting

06 Conduct exercise

- Encourage riders to complete perimeter turns after stop
- Observe each rider through perimeter turn before signaling next rider
- Note skill development as riders practice clutch control lane
- Reverse exercise by moving riders to new start point

07 Stage riders in parking area

08 Debrief

Note: An equal amount of time should be spent in each direction


01 Read objective

- To be able to adjust speed to make smooth turns and negotiate weaves

02 Explain range setup

- Cones around perimeter of range, 20' apart on one side and 30' apart on the other

03 Provide instructions
Part 1 - Ride perimeter outside the cones

- On signal, ride the perimeter outside of cones and adjust speed for corner
- Maintain an adequate following distance
- Speed up as possible on the straightaway and slow for the corners
- Do not squeeze the clutch when slowing

Part 2 - Weave

- After some time and on signal, begin to weave around the cones Starting on the outside of the first cone
- On signal, stop in line to reverse direction
- On signal, stop in line to reverse and ride to parking area

04 Provide demo

- Note evaluations and provide signals
- Maintain precise control
- Slow with both brakes before corners (no clutch squeeze)
- Use throttle smoothly
- Keep right wrist flat without covering front brake
- Maintain a safety margin, particularly in following distance

05 Provide simulated practice of steady throttle with steering input
06 Conduct exercise, with reversal of weave

- Provide extended time on perimeter

07 Stage riders in the parking area

08 Debrief


01 Read objective

- To be able to effectively maneuver the motorcycle

02 Explain range setup

- Down the middle: a pause-n-go, clutch control lane, and turn
- On the long sides of the range are offset weaves and a perimeter turn

03 Provide instructions

- Ride down the center of the range for the pause-n-go, the clutch control lane, and turn left or right
- On the long sides, weave around the cones starting to the outside of the first cone
- Slow at the end and make a perimeter turn
- Check for traffic and repeat up the middle
- Alternate sides

04 Provide demo

- Note evaluations and provide signals
- Coordinate throttle, clutch, and brake use
- Keep head and eyes up
- Maintain appropriate following distance
- Check for traffic
- Maintain a safety margin

05 Conduct exercise

- Start riders down middle
- Stress gap selection
- Have riders work toward very low speeds in clutch control lane
- Initially distribute riders evenly on long sides

06 Stage riders in parking area

07 Debrief


## 1. Read objective

- To be able to ride smoothly through turns using correct technique

2. Explain range setup

- An oval formed by 2 large arcs

3. Provide instructions

- On signal, ride the oval to the left in 2nd gear
- Before passing each entry cone, brake to entry speed without squeezing the clutch
- Look through turn and maintain or increase speed gradually through turn
- Once completed to the left, the exercise will be reversed
- Once completed to the right, the exercise will be reversed
- On signal, ride to the parking area

4. With class at entry point, provide demo

- Note evaluations and provide signals
- Maintain smooth, controlled operation
- Keep head and eyes up, and look through the path of travel
- Slow with both brakes prior to entry
- Use Slow, Look, Press, Roll technique in cornering
- Maintain a safety margin

5. Conduct simulated practice of "look and press"
6. Conduct exercise (running to left)

- Initially coach "slow and look"
- Stop and reverse exercise (running to right)
- Stop, or stage riders to debrief and coach
- Repeat exercise left and right

7. Stage riders in parking area
8. Debrief

Note: The maximum number of riders for the oval is 6 .

01 Read objective

- To be able to select the proper gear for road speed

02 Explain range setup

- Perimeter with cue cones for shifting and turning

03 Provide instructions

- On signal, complete a sweeping U-turn and ride the perimeter clockwise in 2nd gear
- At the triple cones, shift to 3rd gear and increase speed
- At double cones, downshift to 2nd gear, easing out clutch while in straight path
- Slow prior to continuing to other side
- On signal, reverse and ride parking area

04 With class observing at a downshift point, provide demo

- Note evaluations and provide signals
- Keep head and eyes up
- Match gear to speed
- Change gears smoothly
- Maintain a safety margin

05 Conduct exercise

- Initially coach riders on the timing of downshift and easing out clutch if necessary

06 Stage riders

- Slow and stop riders on far side
- Stage riders in parking area


01 Read objective

- To be able to stop quickly and safely in shorter distances

02 Explain range setup

- 2 stop lanes, one of each each side of the range
- 2 pause-n-gos in middle

03 Provide instructions
Part 1 - Stop using cue cones

- On signal, ride down the middle of the range through the pause-n-gos
- Ride to a start point for stop lane
- When stopping area is clear and one at a time, approach stopping area at about 15 mph in 2nd gear
- Stabilize speed early
- As your front tire passes the cue cones, downshift keeping the clutch squeezed, and make a quick stop using both brakes
- Once coached, make the perimeter turn, check for traffic and ride the pause-n-gos
- Turn and get in the shorter line

Part 2 - Stop on signal

- Stop quickly upon command

04 With class at stop point, provide demo

- Note evaluations and provide signals
- Keep head and eyes up
- Use brakes firmly, not grabbing the front brake or locking the rear brake
- If rear wheel locks; use less pressure next time
- If front wheel locks, immediately release lever and reapply with less pressure
- Shift with precision
- Maintain a safety margin
- Keep speeds low and use soft pressure on front brake for the first few attempts

05 Provide simulated practice of quick stop procedure

06 Conduct exercise

- To start, distribute riders evenly
- Stress gap selection
- Part 1: use cue cones
- Part 2: use stop signal

07 Stage riders in parking area

## Debrief



01 Read objective

- To be able to maneuver in limited spaces

02 Explain range setup

- A U-turn area, S-turn, perimeter turn, pause-n-go, and clutch control lane

03 Provide instructions

- On signal, move to the start point
- When U-turn area is free and one at a time, ride a U-turn left and a U-turn right
- Ride the S-turn and perimeter turn
- Pause-n-go and ride the clutch control lane
- Turn and stop in U-turn line

04 With riders near U-turn box, provide demo

- Note evaluations and provide signals
- Maintain overall control
- Turn handlebars and counterweight
- Keep head and eyes up, and look though path of travel
- Coordinate clutch and throttle actions
- Maintain a safety margin

05 Provide simulated practice

- Stress handlebar turn, motorcycle lean and counterweight
- Stress head turn

06 Conduct exercise

- As riders gain skill, have them work toward the $20^{\prime}$ U-turn

07 Stage riders in parking area

Debrief


- To be able to initiate lean for turning using handgrip pressure

02 Explain range setup

- An offset path down the middle and a 30' weave on the perimeter

03 Explain counter steering

- Changing a path of travel requires an initial press on the handgrip in the direction of the change (press right - go right; press left - go left)

04 Provide instructions

- On signal, ride to the starting point
- On signal and one at a time ride through the path of travel in 1st or 2nd gear
- Unless stopped, slow before turning and proceed through the weave to return to line
- After some time and on signal, stop as a group for coaching
- The exercise will be repeated, this time with a continuous path

05 Provide demo

- Note evaluations and provide signals
- Keep head and eyes up
- Initiate path of travel change with handgrip pressure
- Maintain steady speed

06 Provide simulated practice

- Press and lean
- Make sure all riders allow motorcycle to lean in direction of press

07 Conduct exercise, including repeat
1st session:

- Use $30^{\prime}$ weave for initial path
- Call riders one at a time, stopping for coaching [only] if necessary

2nd session:

- Use $30^{\prime} \times 3^{\prime}$ offset weave
- Use a continuous path of travel

Stage riders in parking area
09 Debrief


## 1. Read objective

- To be able to judge entry speed and corner skillfully

2. Explain range setup

- A path down the sides of the perimeter and 2 cornering gates

3. Define entry speed

- The speed at the beginning of a turn that allows throttle roll-on throughout the turn


## 4. Provide instructions

- On signal, ride around perimeter to start position
- On signal and one at a time, approach the cue cones in 2 nd gear at about 15 mph
- Prior to cue cones, slow to a suitable entry speed
- For farther gate, stay in 2nd gear and slow to entry speed without squeezing clutch
- For closer gate, consider downshifting to 1st gear prior to entry cone
- Look through turn and maintain or increase speed through a gate
- Alternate gates with each revolution
- Proceed to end of line unless signaled
- After some time and on signal, the exercise will be reversed

5. With riders at cue cone, provide demo

- Note evaluations and provide signals
- Shift smoothly
- Use slow, look, press, roll technique
- Control speed
- Maintain a safety margin


## 6. Provide simulated practice

- Look and press

7. Conduct exercise, with reversal

- Higher-geared motorcycles may need to stay in 1st gear for both gates
- Run in both directions, repeat as necessary

8. Stage riders in parking area
9. Debrief


01 Read objective

- To become proficient in riding smoothly through curves

02 Explain range setup

- 2 curved paths marked by lines and cones

03 Provide instructions

- On signal, ride to starting point
- On signal and one at a time, ride through first curve in 2nd gear, rolling on throttle to increase speed
- Use an outside-inside-outside path of travel
- Continue to increase speed in straightaway.

You should go fast enough to demonstrate the technique (approximately 12 to 17 mph )

- For second curve, slow before entering, without squeezing clutch, and look, press, roll.
- Use an outside-inside-outside path of trave
- Once straight, shift to 1st gear and stop at cones
- After some time and on signal, the exercise will be reversed

04 With riders at entry point, provide demo

- Note evaluations and provide signals
- Keep head and eyes up
- Use an outside-inside-outside path
- Use slow, look, press, roll technique
- Shift and stop smoothly
- Maintain a safety margin

05 Conduct exercise, with reversal

06 Stage riders in place

07 Debrief


01 Read objective

- To be able to stop quickly in a curve

02 Explain range setup

- 2 curved paths marked by lines and cones, with gap selection in middle

03 Provide instructions

- When curve is clear, one at a time, ride into curve in 1 st or 2 nd gear
- After entering the curve, straighten and then brake to a stop (going over the line if necessary)
- After coaching, select a safe gap and proceed to other line
- On signal, return to parking area

04 With riders at stop point, provide demo

- Note evaluations and provide signals
- Use outside-inside-outside path
- Straighten before braking
- Keep head and eyes up
- Do not brake too hard
- Have handlebars square when stopped
- Select a safe gap in middle
- Maintain a safety margin

05 Provide simulated practice

- Straighten, then brake

06
Conduct exercise

07
Stage riders in parking area

Debrief


01 Read objective

- To be able to cross over obstacles and make lane changes

02 Explain range setup

- Obstacles on outside perimeter
- A lane change area and an offset weave on the perimeter

03 Provide instructions
Part 1 - Obstacle

- On signal, ride the perimeter crossing over obstacles on both sides of range
- On signal, stop to set up for lane change and offset weave

Part 2 - Lane Change and Weave

- On signal and one at a time, perform a lane change in the direction of your choice and stop for coaching
- After coaching, turn and complete offset weave to return to line

04 With riders at a coach position, provide demo

- Note evaluations and signals for Part 1
- Approach at 90 degrees
- Keep eyes up, looking ahead
- Grasp both handgrips
- Rise off seat, knees bent and against tank, and weight back slightly
- Accelerate slightly just prior to contact
- At front tire contact, roll off throttle
- Note evaluations and signals for Part 2
- Check mirror, signal, check blind spot, and cancel signal
- Maintain a safety margin

05 Conduct part 1: obstacles

06 Stop riders staging for part 2: lane change

- Remove obstacles
- Provide simulated practice of lane change procedure

07 Conduct part 2

- Coach lane changes and observe offset weaves

08 Stop riders in place

09 Debrief

Note:

- For lane changes, cue cones are 50' from barrier
- Weave cones are 30' apart with a 3' offset


01 Read objective

- To be able to avoid hazards by swerving or stopping quickly

02 Explain range setup

- An obstacle barrier and an offset weave on outside perimeter

03 Provide instructions
Part 1 - Swerve

- On signal and one at a time, approach barrier at around 12 mph in 2 nd gear
- Maintain a steady speed
- Swerve in direction signaled without braking
- When straight, downshift and stop for coaching
- After coaching, turn and complete offset weave returning to line

Part 2 - Swerve or Brake

- After some time, a 3rd signal will be added providing 3 options: swerve left, swerve right, or brake in straight line

04 With riders at coach position, provide demo

- Note evaluations and provide signals

Part 1 - Swerve

- Keep head and eyes up
- Keep speed under control
- Keep body upright, independent of motorcycle lean
- Maintain steady speed when swerving
- Do not brake while swerving
- In weave, maintain steady speed

Part 2 - Swerve or Brake

- When stopping, downshift and brake smoothly in a straight line
- In weave, maintain steady speed

05 Provide simulated practice

- Swerving with upper body straight

06 Conduct exercise

- Provide early signals, no surprises
- For Part 2, tell riders that first signal will be a stop signal, then signals will be random

07 Stage riders in parking area
08 Debrief

Notes:

- The cue cones are 15' from the barrier and 3' apart
- The weave cones are $30^{\prime}$ apart with a 3' offset



## $45^{\circ}$ PULL－OUT

## 回回回 $0_{0}$ O回



Pull out can be made in either direction．

## 90 Degree Right Turn


$180^{\circ}$ DECEL

$$
1
$$




## 180 Degree U-Turn

## Ace of Clubs



Start with 3-18 foot circles in a triangle pattern.
The entrance is 5 feet wide and 8 feet deep to the edge of the two bottom circles. The cone in the entrance is at the intersection of the two bottom circles.
The entrance to the top circle is also 5 feet.
The center pivots are 4 foot traffic posts.

## Ace of Diamonds



The outer diamond is 57 feet long and 33 feet wide. The inner diamond is 32 feet long and 22 feet wide. Inside the inner diamond is the 18 foot circle. The entrance is 5 feet wide. At the side of the inner diamond the pivot/turn cone in on the outside of the line/offset.

## Ace of Hearts



For the outer heart start with 2-18 foot circles side by side.



Start with 2-18 foot circles side by side. The top is formed from the outer sides of the circles and brought to a point.


The Al Cannon


## The Al Cannon Baseline Measurements

|  | X (Baseline) | Y |
| :---: | :---: | :---: |
| A | 44' | -11' 5 " |
| B | 47' 8" | -3' 9" |
| C | 51' ${ }^{\prime \prime}$ | -3' 5" |
| D | 54' 8" | -9 ${ }^{\prime \prime}$ |
| E | 60' 0 " | 9' 0" |
| F | $55^{\prime \prime}$ | 11' ${ }^{\prime \prime}$ |
| G | 70' 8" | 25' ${ }^{\prime \prime}$ |
| H | 72' 7 | 21'3" |
| J | 80' ${ }^{\prime \prime}$ | 26' ${ }^{\prime \prime}$ |
| K | 75' 8" | -30' 7 " |
| L | 75' 8' | -25' 7" |
| M | 84' 7" | -22' 9" |
| N | 86' 0 " | -27' ${ }^{\prime \prime}$ |
| P | 95' 2 " | -23' ${ }^{\prime \prime}$ |
| R | 52' 8" | 0 |
| S | 57' 8" | 0 |

The area between the key cones is to be filled in with cones.
The Measurements are Center Cone to Center Cone


## "THE BALLPARK" <br> COURSE "B"

ENTER EITHER GATE AND WEAVE AROUND CENTER CONE. IF ENTERING ON THE RIGHT GO TO 1ST BASE AND MAKE RIGHT HAND CIRCLE AT EACH BASE, WEAVING OUT LEFT GATE AT HOME PLATE.



## The Beehive

## THE BIG "O"



## BO'S BACK DOOR



## MEASUREMENTS

1) Four 50 ' tapes and 42 cones are required to complete this pattern. Measurements are center to center.
2) Place base line (\#1) at bottom of pattern and mark " 0 " with a nail. Extend tape to $30^{\prime}$. 3) Place center line (\#2) at the 13 ' mark of base line. Square the two lines.
3) Once lines are square, mark the following:

BASE:
$0,4^{\prime}, 8^{\prime}, 13^{\prime}, 18^{\prime}, 20^{\prime \prime} 9^{\prime \prime}, 23^{\prime} 6^{\prime \prime}$ and $29^{\prime}$

## CENTER:

$18^{\prime \prime}$ (cone B), $34^{\prime \prime} 5^{\prime \prime}$ (cone A) and $43^{\prime} 11^{\prime \prime}$ (cone 10)
5) Place riser line (\#3-outside gate) at the 29 mark. Square with base and center then mark:
$6^{\prime}, 9^{\prime} 8^{\prime \prime}, 14^{\prime}, 17^{\prime \prime} 7^{\prime \prime}$, and $21^{\prime} 3^{\prime \prime}$
6) Place rise line (\#4-inside gate) at the $23^{\prime} 6^{\prime \prime}$ mark and square with base and center, the mark:

$$
6^{\prime}, 9^{\prime} 8 \prime \prime \text {, and } 21^{\prime} 3^{\prime \prime}
$$

7) Place final rise line (\#5) at the $18^{\prime}$ mark, square then mark:
$6^{\prime}, 9^{\prime \prime} 8^{\prime \prime}$ and $21^{\prime} 3^{\prime \prime}$
8) The remainder of the measurements are triangulated from Cone A \& B located on the center line. Mark " 0 " of each tape with a nail and begin with cone \#24 and travel counter clockwise.

| Cone\# | $\underline{A}$ | $\mathbf{B}$ |
| :---: | :---: | :---: |
| 24 | $9^{\prime} 6^{\prime \prime}$ | $9^{\prime} 4^{\prime \prime}$ |
| 25 | $9^{\prime} 6^{\prime \prime}$ | $18^{\prime}$ |
| 26 | $9^{\prime} 6^{\prime \prime}$ | $23^{\prime} 11^{\prime \prime}$ |
| 27 | $9^{\prime} 6^{\prime \prime}$ | $26^{\prime}$ |
| 28 | $9^{\prime} 6^{\prime \prime}$ | $24^{\prime} 9^{\prime \prime}$ |
| 29 | $9^{\prime} 6^{\prime \prime}$ | $20^{\prime} 4^{\prime \prime}$ |
| 30 | $9^{\prime} 6^{\prime \prime}$ | $15^{\prime} 7^{\prime \prime}$ |
| 31 | $9^{\prime} 6^{\prime \prime}$ | $10^{\prime \prime} 4^{\prime \prime}$ |
| 32 | $14^{\prime} 5^{\prime \prime}$ | $9^{\prime} 5^{\prime \prime}$ |
| 33 | $20^{\prime}$ | $11^{\prime}$ |
| 34 | $24^{\prime} 10^{\prime \prime}$ | $13^{\prime \prime} 8^{\prime \prime}$ |
| 35 | $29^{\prime \prime} 9$ | $16^{\prime \prime} 11^{\prime \prime}$ |
| 36 | $33^{\prime} 55^{\prime \prime}$ | $19^{\prime} 4^{\prime \prime}$ |
| 37 | $25^{\prime \prime} 3^{\prime \prime}$ | $10^{\prime} 3^{\prime \prime}$ |
| 38 | $24^{\prime \prime} 8^{\prime \prime}$ | $9^{\prime \prime} 3^{\prime \prime}$ |
| 39 | $24^{\prime \prime} 3^{\prime \prime}$ | $8^{\prime \prime} 2^{\prime \prime}$ |
| 40 | $20^{\prime \prime} 6^{\prime \prime}$ | $4^{\prime \prime} 2^{\prime \prime}$ |
| 41 | $14^{\prime} 2^{\prime \prime}$ | $3^{\prime} 9^{\prime \prime}$ |



## Brake and Evade




The Cajun Craze


THE COOPER


All Measurements are to the Center of the Cone
Not drawn to acale

Place a nail where the course is to begin, this is the 0 ' mark. Measure from this point out $41^{\prime}$ and mark this point. At a right angle to the $0^{\prime}$ mark measure $30^{\prime} 6^{\prime \prime}$, these are your baselines.

On the $41^{\prime}$ baseline make a mark at $5^{\prime}, 10^{\prime}, 15^{\prime}, 20^{\prime}, 25^{\prime}, 30^{\prime}, 35^{\prime}$, and $41^{\prime}$
On the $30^{\prime} 6^{\prime \prime}$ baseline make a mark at $5^{\prime}, 10^{\prime}, 15^{\prime}, 20^{\prime}, 25^{\prime}$, and $30^{\prime} 6^{\prime \prime}$
From the baselines make the following marks using the triangle method.

## 41' Baseline $30^{\prime} 6^{\prime \prime}$ Baseline

3'5" $30^{\prime}$
$5^{\prime} 20^{\prime}$
5'6" 25'
$5^{\prime} 30^{\prime}$

$$
7^{\prime} 6^{\prime \prime} 6^{\prime}, 9^{\prime}, 10^{\prime} 12^{\prime}
$$

$10^{\prime} 20^{\prime}$
$15^{\prime} 20^{\prime}$
$20^{\prime} 4^{\prime}, 9^{\prime}, 14^{\prime}$
21' $20^{\prime}$
26' $20^{\prime}$
$31^{\prime} 20^{\prime}$
$36^{\prime} 20^{\prime}$
$41^{\prime} 4^{\prime}, 9^{\prime}, \mathbf{1 5}^{\prime} \mathbf{6}^{\prime \prime}, \mathbf{2 0}$

## To Form Circle:

Pull a tape from the $18^{\prime}$ mark of the $41^{\prime}$ baseline and from the $30^{\prime}$ mark of the $30^{\prime} 6^{\prime \prime}$ baseline. Place a mark where these two tapes cross. Using the center mark for the circle as a pivot pull a tape $10^{\prime}$. Starting at the mark that is at the $15^{\prime} 5^{\prime \prime}$ on the $41^{\prime}$ baseline and $20^{\prime}$ on the $30^{\prime} 6^{\prime \prime}$ baseline move counter clockwise and make a mark $2^{\prime} 2^{\prime \prime}$, from that mark move $2^{\prime} 8$ ", from that mark move $3^{\prime \prime}$, from that mark move $5^{\prime \prime}$, continue making marks at 3 foot intervals until circle is complete. Distance of final cones will be less that $3^{\prime}$.



b) $E-C=21, \quad B A>E$ TD AAS




## Coriolis



Tools: Two 50 foot tapes.

## Marking paint

One hammer
Two nails to hold tapes in place Three people

First; Mark your riser Inline. Place one of the fifty-loot tapes on the ground and measure up 33 feet. From your zero point $A$ ( $A$ will be zero on the tape measure) measure up $3^{\prime} 10^{m}$ mark that point. Next measure up from the zero point A $13^{\circ} 2^{m}$ this will be your a cone mark that point. From A measure up $22^{\prime \prime}$ mark that point. Next from A measure up 27"4" mark that point. Last from A measure up $313^{\prime \prime}$ mark that point.


Rider to enter through center
then left or right

Rider may enter to left or right
112 revolutions must be complete


"EL DIB3LO".



The Fairfax


THE FRENCH QUARTER TOUR LARGE TRACK

REVISED 7/28/99


The Glock


Glock Course Measurements
These measurements are done by triangulation with a $30^{\prime}$ baseline for $A$ and $B$

| A | B |
| :---: | :---: |
| 45' ${ }^{\prime \prime}$ | 22'51/2" |
| $43^{\prime} 21 / 2^{\prime \prime}$ | 21' ${ }^{\prime \prime}$ |
| $40^{\prime}$ | 21'31/2' |
| $37^{\prime \prime}{ }^{\prime \prime}$ | 22'7" |
| $36^{\prime} 6^{\prime \prime}$ | $24^{1} 1^{\prime \prime}$ |
| 35' ${ }^{\prime \prime}$ | $26^{\prime} 6^{\prime \prime}$ |
| $35^{\prime}$ | 30'5" |
| $35^{\prime \prime}{ }^{\prime \prime}$ | $34^{\prime \prime}{ }^{\prime \prime}$ |
| $35^{\prime} 6^{\prime \prime}$ | 37' ${ }^{\prime \prime}$ |
| 35' $71 / 2^{\prime \prime}$ | $39^{\prime} 6^{\prime \prime}$ |
| 35' 11" | $42^{\prime}$ |
| 34' 8' | $42^{\prime} 5^{\prime \prime}$ |
| 19'9" | 31' ${ }^{\prime \prime}$ |
| 23' ${ }^{\prime \prime}$ | 47' ${ }^{\prime \prime}$ |
| $28^{\prime} 11^{\prime \prime}$ | $45^{\prime}$ |
| $42^{\prime \prime} 7^{\prime \prime}$ | $53^{\prime}$ |
| $41^{\prime} 7^{\prime \prime}$ | 45'9" |
| $49^{\prime \prime} 9^{\prime \prime}$ | 30' 1" |
| 53' ${ }^{\prime \prime}$ | $35^{\prime} 8{ }^{\prime \prime}$ |
| 49'9" | 55' ${ }^{\prime \prime}$ |
| 48' ${ }^{\prime \prime}$ | $51^{\prime \prime} 8^{\prime \prime}$ |
| $49^{\prime}$ | $50^{\prime} 4^{\prime \prime}$ |
| $50^{\prime} 7$ | 49' ${ }^{\prime \prime}$ |
| 51'9" | $48^{\prime} 8^{\prime \prime}$ |
| $51^{\prime \prime}$ | 46' ${ }^{\prime \prime}$ |
| 72' $11^{\prime \prime}$ | $69^{\prime} 6^{\prime \prime}$ |
| $71^{\prime \prime} 1$ | $68^{\prime} 10^{\prime \prime}$ |
| $69^{\prime} 1^{\prime \prime}$ | $68^{\prime} 4^{\prime \prime}$ |
| $67^{\prime \prime} 9^{\prime \prime}$ | $69^{\prime} 1$ 1" |
| $67^{\prime \prime} 2^{\prime \prime}$ | $70^{\prime} 1$ " |
| $66^{66^{\prime} 10^{\prime \prime}}$ | $71^{\prime} 3^{\prime \prime}$ |
| 66' $10^{\prime \prime}$ | $60^{\prime} 4^{\prime \prime}$ |
| $60^{\prime \prime} 3^{\prime \prime}$ | 60'9" |
| $60^{\prime} 1{ }^{\prime \prime}$ | $61^{\prime} 6^{\prime \prime}$ |
| $59^{\prime} 10^{\prime \prime}$ | $62^{\prime} 7^{\prime \prime}$ |
| $59^{\prime} 11^{\prime \prime}$ | 63' 11" |
| $60^{\prime}$ | $65^{\prime}$ |
| $59^{\prime} 4^{\prime \prime}$ | $69^{\prime} 7^{\prime \prime}$ |



These are key cone measurements, all straight lines should be filled in.



1. Pull a 76 ' straight line
2. Mark the $6^{\prime}, 18^{\prime}, 30^{\prime}, 40^{\prime}, 54^{\prime}$, and $76^{\prime}$ cones on the line
3. Mark the $47^{\prime}$ radius point and the $67^{\prime}$ reference point
4. Measure out a $7^{\prime}$ and $11^{\prime}$ radius circle from the $47^{\prime}$ radius point
5. From the $67^{\prime}$ reference point, measure above and below $7.5^{\prime}$ for each cone
6. From the above cone, measure out a 9 ' radius half circle and repeat for the below cone
7. Main entry gate is 8 ' wide ( 4 ' off both sides of the center line)
8. The gate going into the first circle is $8^{\prime}$ wide ( $4^{\prime}$ off both sides of the center line)
9. The gate going into the figure eight is 9 ' wide ( 4.5 ' off both sides of the center line)
10. Measurements are center of cone.

All measurements are to ctr of cones

## The Hangman

 Enter Gate and follow box to circlesCircle \# 1 First (left turn)
After 2nd Circle exit out
Circle \# 2 Second (right turn)
B


Circle \#1
A B $\begin{array}{lll}\text { CTR } & 45.2 \quad 39.6\end{array}$
$\begin{array}{lll}\text { Cir. Entr. } & 36.6 & 37.3\end{array}$
Cir. Entr. 40.9
43.3

Circle \#2
A B
$\begin{array}{lll}\text { CTR } & 56.2 & 58\end{array}$
Cir. Entr. $46.5 \quad 51.6$
Cir. Entr. $50.7 \quad 57.7$

## HARP



The Hell's Kitchen



- From Cone 0 you will then pull aheco degreas upward to 65
- At you base line from Cone 2 go $64^{\circ}$ and mak your entrance and ext tato
- From Cone $\$ 0$ abrg basa merk 16 gud apan al 24
- From your 24 man go go degrace upard to 25 7* This ts your Reference Porl 2
- From Cone to upwerds you th the go 26 the wall be you fleferance Port 1
* Use atached capran io mexe manguatons from Retertace Pant and fielerenca Pcim 2 to mark cones


[^0]$\qquad$


## Intersection




## Lane Change



Lollipop

$\xrightarrow{18^{\prime} \text { Radius Circle }} 0$


Loopty Loop


All measurements are to center of cone.

| Reference <br> Point | Up | Over |
| :---: | :---: | :---: |
| A | $0^{\prime}$ | $0^{\prime}$ |
| B | $0^{\prime}$ | $6^{\prime}$ |
| C | $0^{\prime}$ | $12^{\prime}$ |
| D | $12^{\prime}$ | $12^{\prime}$ |
| E | $12^{\prime}$ | $41^{\prime}$ |

## The Maple Leaf Forever



The rider enters the "stem" of the maple leaf and makes a 90 degree left hand turn and proceeds forward into the first section of the course. The rider makes a right hand 180 degree turn to the right around the pivot cone to proceed in the opposite direction. The rider then makes a left turn (approximately 45 degrees) to proceed into the second section of the course. Another 180 degree right hand turn around the pivot cone to proceed in the opposite direction. The rider then makes a left turn into the top section of the maple leaf. The rider makes a 180 degree turn within the section in a counterclockwise direction. The rider then makes a left turn to enter the fourth section of the course. Another 180 degree right turn around the pivot cone to proceed in the opposite direction. A left turn to enter the final section of the course. A 180 degree turn around the final pivot cone and a $\mathbf{9 0}$ degree left turn to exit the stem to complete the course.

The Maze


## The Maze



The rider enters the gate and travels up the narrow channel making a number of $9 \mathbf{0}^{\circ}$ left turns. The rider then enters the center area, makes a $180^{\circ}$ turn while avoiding the offset walls then proceeds out the exit gate.

## THE MAZE



Maze


MID ATLANTIC CONE WEAVE

The Serpentine is designed to test the operator's ability to mauver around obstacles slowly and safely. LARGE COURSE


## Mirror Maze



All Measurements are Center Cone to Center Cone

## The Mouse Trap



# N.C.S. LARGE COURSE 



NCS


> N()+NAME, LARGE LUUKSE 50 C()NES
> $73^{\prime} \times 35^{\prime}$
> Messurements By:
> R. Corer
> 品

品 $\underbrace{}_{213}$
品品品


## MEASURWMENTS FOR "NO-NAME", LARGE COURSE

I. Start by measuring a base line of $3 / 10^{\prime \prime}$.
A. At the following locations along the tape make a mark or put a nail as indicated below:
(1) D' MARK (2) 7-1/2" MARK (3) 1' MARK (4) 1'6" MARK
(5) 3'6" NAIL. (6) 5'10-1/2" MARK (7) $6^{\prime} \operatorname{MARK}(8) 6^{\prime} 4-1 / 2^{\prime \prime}$ MARK
(9) 7' MARK (10) B'3" NAIL (11) 10'5-1/2" NAIL
(12) $12^{\prime} 8^{\prime \prime}$ NA1L (13) 14'10-1/2" NAIL (14) $17^{\prime} q^{\prime \prime}$ NAIL
(15) 19'6" NAIL (16) 21'11" NAIL (17) 24.4" NAIL
(18) $30^{\prime} 10^{\prime \prime}$ MAIL (19) 31. $\prime^{\prime \prime}$ MARK (20) $314{ }^{\prime \prime}$ MAHK

NOTE: All of the following measurements MUST be at 90 degree angles to the above measurements.
B. At the D' mark, measure $41^{\prime \prime} 2^{\prime \prime}$ to the right and put a nail.
C. At the $7-1 / 2^{\prime \prime}$ mark, measure $30^{\prime} 10^{\prime \prime}$ to the right and put a nail.
D. At the $1^{\prime}$ mark, measure $21^{\prime \prime} 3^{\prime \prime}$ to the right and put a nail.
E. At the $1^{\prime \prime} 6^{\prime \prime}$ mark, measure $10^{\prime \prime} 8^{\prime \prime}$ to the $r i g h t$ and put a nail.
F. At the $3^{\prime} 6^{\prime \prime}$ nail, measure $3^{\prime}$ and 6' to the right PLUS $4^{\prime}$. and $8^{\prime}$. to the left and put nails.
G. At the 5'10-1/2" mark, measure $10^{\prime \prime} 8^{\prime \prime}$ to the right PLOS $0^{\prime}$ to the left and put nails.
11. At the 6' mark, measure $21^{\prime} 3^{\prime \prime}$ to the right and put a nail.
I. At the 6'4-1/2" mark, measure $30^{\prime \prime} 10$ " to "the right and put a nail.
J. At the $7^{\prime}$ mark, measure 41." "to the right and put a nail.
K. At the $8^{\prime \prime} 3^{\prime \prime}$ nail, measure $3^{\prime \prime}$ and $6^{\prime \prime}$ to the right PLUS 8' to the left and put nails.
L. At the $10^{\prime} 5-1 / 2^{\prime \prime}$ nail, measure $8^{\prime}$ to the left and put a nail.
M. At the 12 '8" nail; measure $B^{\prime}$. to the left and put nail.
N. At the $14^{\prime} 10-1 / 2^{\prime \prime}$ nail, measure $8^{\prime \prime}$ to the left and put a nail.

0 . At the $17^{\prime \prime} q^{\prime \prime}$ nall, measure $8^{\circ}$, $11^{\prime} 1^{\circ "}$, and $15^{\circ}$ to the left and put nalls.
F. At the $19^{\prime} 6^{\prime \prime}$ and the $21^{\prime \prime} 11^{\prime \prime}$ nail, no further measurements are needed.
Q. At the $24^{\prime \prime} 4^{\prime \prime}$ nall, measure $4^{\prime}, 8^{\prime}, 11^{\prime \prime} 1^{\prime \prime}$ and $15^{\circ}$ and put nalls.
R. At the $30 \%$ nall, no further measurement is needed.
5. At the $31 / l^{\prime \prime}$ mark, measure $4^{\prime \prime}$ " to the left and put a nail.

## MFASUREMENTS FOR THE "NO-NAME", LARGE COURSE CONTINUED

T. At the 31.4." mark, measure 8' to the left and put a nail.
U. At the $3 \|^{\prime}$ '" mark, measure $11^{\prime \prime}$ " to the left and put a nail.
Y. At the $3 / 10 \prime$ mark, measure $15^{\prime}$ to the left and put a nail.

## 11. MEASUREMENTS FOR THE BOLB

A. With TWO measuring tapes, measure 20' across from the IIIIMARY mark and the SECONDARY mark for the bulb.

EXAMPLE

B. Find where the g' $^{\prime \prime}$ point on each tape intersect each other and mark this spot as the center of the bulb.
C. Measure $A^{\prime}$... from the primary mark and ' $^{\prime \prime}$ from the center of the bulb using both tapes. Put a nail where both measurements intersect. Continue like this until the bulb connects with the secondary mark.
III. ALL MEASUREMENTS ARE FOR CENTER OF CONE TO CENTER OF CONE

## Obstacle Course Lane Change




GATONROUGE,LA

## OFFSET CONE WEAVE



## Offset - Cloverleaf



## Offset - Cloverleaf Measurements

| RP | UP | OVER |
| :---: | :---: | :---: |
| A | 0 | 0 |
| B | 5' | 0' |
| C | 32' | $0 '$ |
| D | 23'6" | $6^{\prime \prime} 3^{\prime \prime}$ |
| E | 8'6" | 12'6" |
| F | 23'6' | 18'9" |
| G | 8'6" | 25' |
| H | 23'6" | $31^{\prime \prime} 3^{\prime \prime}$ |
| I | 8'6" | 37'6" |
| J | $32^{\prime \prime}$ | 41"7' |
| K | $0{ }^{\prime}$ | 41"7" |
| L | 25' | 48' |
| M | 7' | $48^{\prime}$ |
| $\mathbf{N}$ | $16^{\prime \prime}$ | 53'2" |
| 0 | $23^{\prime \prime} 2^{\prime \prime}$ | 57'4' |
| P | 8'10' | 57'4" |
| Q | $16^{\prime \prime}$ | 63'7' |

To set up this course, use a baseline measurement system. All measurements are to the center of the cone. There are cones on all reference points in this course. All radii are 9'6".


| $\frac{\alpha}{2}$ |
| :--- |



For every $25^{\prime}$ length by $10^{\prime}$ width, place a cone at the $9^{\prime}$ length mark.
This will make the 18 ' radius inner circle.
Outside cones are center cone measurements.
The spokes are center cone. The inner circle is outside cone measurements. Gates are 5 ' outside cone measurements. This is a total of a $50^{\prime}$ radius circle.


STAR


## Pitchfork




## RED STICK SLOW CONE WEAVE

Rider may go left or right on entrance. Measurements are from base to base on cones

## The Red Stick

Note: Contestant may choose either direction for slow cone wave, which will determine direstion around circle.



INSTRUCTORS POSITION
IS INDICATED BY ${ }^{\prime}=$
CLASS LINEUP POSITION APPROX.

50 FEET FROM
PAITERN CAN
CHANGE HROM
RIGHT TO LEFT
"S" Curve

## Reference Point @ "C"



## "S" Curve Measurements

Page 2
Distance up reference line ( ft - in )
Distance from Reference line

| $A$ | $1-8$ | $6-8 L$ |
| :--- | :--- | :--- |
| $B$ | $0-9$ | $3-9 L$ |
| $C$ | $0-0$ | $0-0$ |
| $D$ | $0-0$ | $4-0 R$ |
| $E$ | $0-0$ | $8-5 R$ |
| $F$ | $2-10$ | $11-3 R$ |
| $G$ | $7-8$ | $11-10 R$ |
| $H$ | $11-3$ | $9-11 R$ |
| I | $13-1$ | $8-6 R$ |
| $J$ | $16-0$ | $4-11 R$ |
| $K$ | $19-2$ | $1-11 R$ |
| $L$ | $24-5$ | $0-8 R$ |
| $M$ | $27-10$ | $2-11 R$ |
| $N$ | $26-8$ | $7-9 R$ |
| $O$ | $24-6$ | $10-4 R$ |
| $P$ | $27-2$ | $13-3 R$ |
| $Q$ | $31-0$ | $9-3 R$ |
| $R$ | $32-2$ | $5-1 R$ |
| $S$ | $31-11$ | $1-2 R$ |
| $T$ | $30-4$ | $2-11 L$ |
| $U$ | $27-0$ | $5-7 L$ |
| $V$ | $22-6$ | $5-0 L$ |
| $W$ | $18-5$ | $2-8 L$ |
| $X$ | $14-8$ | $1-1 L$ |
| $Y$ | $10-3$ | $2-0 R$ |
| $Z$ | $7-1$ | $3-11 R$ |
| A | $6-8$ | $0-10 L$ |
| $B$ | $7-7$ | $4-10 L$ |

## santa Rosa



## Serpentine



## Sickle



Measurements are to cone edge.

## SLOW CONE WEAVE




Enter and only complete one revolution in the circle then exit.

## Slow Ride



STET

In this timed event, the rider attempts to hegotiate their motoreycle down a 50 ft by 4.5 ft . ceurse lined with cones as slowly as possible. If the rider goes out of bounds or puts their foot down, the timer is stopped.

## Snowman

All measurements are from center to center. The diameters of the circles should be from center of one cone, directly across center to center of opposite cone.


## ST. CHRISTOPHER



Enter

## THE STREETCAR LARGE TRACK

REVISED 7/28/99


## The Super Offset



| Cone II | South | West |
| :--- | :---: | :---: |
| A | 0 | 0 |
| B | 0 | $5^{\prime}$ |
| C | 9 | $9^{\prime} 5^{\prime \prime}$ |
| D | 9 | $5^{\prime}$ |
| E | $6^{\prime}$ | $24^{\prime}$ |
| F | $24^{\prime}$ | $8^{\prime}$ |
| G | $18^{\prime} 6^{\prime \prime}$ | $24^{\prime}$ |
| H | $37^{\prime}$ | $8^{\prime}$ |
| J | $31^{\prime}$ | $24^{\prime}$ |
| K | $49^{\prime}$ | $8^{\prime}$ |
| L | $47^{\prime}$ | $27^{\prime}$ |
| M | $47^{\prime}$ | $22^{\prime} 7^{\prime}$ |
| N | $56^{\prime}$ | $27^{\prime}$ |
| P | $56^{\prime}$ | $32^{\prime}$ |

T-BoNe Twist

Not to scale.
Measurements are From Base to Base unless Noted. From center OUAL cones to outer $T$ cones is 9 !.


## "W"



Measurements are to cone edge.
measurements indicated are from the baseline to the center of the first (closest) cone. gate is 10 feet apart. The entrance and exit gates are 4 feet wide, all other gates
 -әио๐ до ләңนә๐ 0 This s are $4^{\prime} 6^{\prime \prime}$ wide. The




## Triple Circle



All measurements are to center of the cone


## TURN OBSTRUCTION



## Winged Wheel



The "Winged Wheel"

| RP | UP | OVER |
| :---: | :---: | :---: |
| A | 0 | 7'11" |
| B | $0 '$ | 7'11" |
| C | 5' 7 " | 5' 8" |
| D | 5'7" | 5' 8' |
| E | 10'1" | $16^{\prime} 9^{\prime \prime}$ |
| F | $10^{\prime} 1^{\prime \prime}$ | 16' ${ }^{\prime \prime}$ |
| G | $17^{\prime \prime}{ }^{\prime \prime}$ | $50^{\prime}$ |
| H | 17'4" | $50^{\prime}$ |
| 1 | $17^{\prime \prime} 6^{\prime \prime}$ | 15' 8" |
| J | $17^{\prime} 6^{\prime \prime}$ | $1^{\prime} 6^{\prime \prime}$ |
| K | $17^{\prime} 6^{\prime \prime}$ | $1^{\prime} 6^{\prime \prime}$ |
| L | $17^{\prime} 6^{\prime \prime}$ | 15' $8^{\prime \prime}$ |
| M | 20' ${ }^{\prime \prime}$ | $28^{\prime}$ |
| N | $20^{\prime} 6^{\prime \prime}$ | $28^{\prime}$ |
| O | 22' ${ }^{\prime \prime}$ | 42' |
| P | 22' ${ }^{\prime \prime}$ | $42^{\prime}$ |
| Q | 22' 10" | 21'8" |
| R | 22' 10" | 21'8" |
| S | 23' 6 " | 15' ${ }^{\prime \prime}$ |
|  | $23^{\prime \prime} 6^{\prime \prime}$ | $1^{\prime} 6{ }^{\prime \prime}$ |
| U | 23' ${ }^{\prime \prime}$ | $1^{\prime} 6^{\prime \prime}$ |
| V | 23'6" | $15^{\prime} 9^{\prime \prime}$ |
| W | $36^{\prime}$ | 42' |
|  | 36' | 42' |
|  | $53^{\prime} 6^{\prime \prime}$ | 50' |
|  | $53^{\prime \prime} 6^{\prime \prime}$ | $50^{\prime}$ |

To setup this course, use a baseline measurement system. All measurements are to the center of the cone. There are cones on all reference points in this course. The circle has a $16^{\prime}$ radius.

$$
\left.\begin{array}{ccccc} 
& 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 \\
0 & 0 & & 0 & 0 \\
0 & 0 & 0 & 0 & 0 \\
& 0 & 0 & 0 & 0 \\
& 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 \\
0 & & 0 & 0 & 0
\end{array}\right]
$$



## "The Wrench" Baseline Measurements

|  | X | Y (Baseline) |
| :---: | :---: | :---: |
| A | 2' 5" | 0 |
| B | 7' ${ }^{\prime \prime}$ | 0 |
| C | 2' 4" | 8' 6" |
| D | 8' | 8' 6" |
| E | 16' ${ }^{\prime \prime}$ | 8' 6 " |
| F | 2' ${ }^{\prime \prime}$ | 15' ${ }^{\prime \prime}$ |
| G | 9' ${ }^{\prime \prime}$ | 15' ${ }^{\prime \prime}$ |
| H | 9' 2 " | 19'4" |
| 1 | 2' ${ }^{\prime \prime}$ | 19'4" |
| J | 16' ${ }^{\prime \prime}$ | 27' ${ }^{\prime \prime}$ |
| K | 2' ${ }^{\prime \prime}$ | 27' 6" |
| L | 8' ${ }^{\prime \prime}$ | 27' 6" |
| M | 2' ${ }^{\prime \prime}$ | 30' 11" |
| N | 8' ${ }^{\prime \prime}$ | 30' 11" |
| O | 8' 10" | 33' |
| P | 3'1" | 33' ${ }^{\prime \prime}$ |
| Q | 4' 1" | 36' |
| R | 10' 11" | 35' 4" |
| S | 0 | 39' |
|  |  |  |

The area between the key cones is to be filled in with cones.
The Measurements are Center Cone to Center Cone
The two sides are mirror images after you have completed the right side use the same $X$ measurements on the negative side to get the left side of the course.

## The Wrench



## NW Evergreen Designed by Lynnwood PD

How cones are measured (Except \#19 \& \#26).
Measure from baseline to inside, center of cone.


Cone \# 19 and \#26 are placed on the baseline, like so.


## NW Evergreen Designed by Lynnwood PD

- Baseline Start to End is $140^{\prime}$
- All measurements are right and left of the baseline. The anchor and pivot cones are the only cones measured. Fill cones will have to be placed in line with the anchor cones.
- Cones are placed as follows; baseline measurement to center and inside edge of cone. (See Diagram)

| Cone | Distance on baseline | Distance $^{\prime}$ | Left or Right of baseline |
| :---: | :---: | :---: | :--- |
| 1. | 0 | $2^{\prime} 6^{\prime \prime}$ | R |
| 2. | 0 | $2^{\prime} 6^{\prime \prime}$ | L |
| 3. | $3^{\prime}$ | $2^{\prime} 6^{\prime \prime}$ | R |
| 4. | $3^{\prime}$ | $2^{\prime} 6^{\prime \prime}$ | L |
| 5. | $3^{\prime}$ | $30^{\prime}$ | R |
| 6. | $3^{\prime}$ | $30^{\prime}$ | L |
| 7. | 12 | $19^{\prime}$ | R |
| 8. | $15^{\prime} 6^{\prime \prime}$ | $17^{\prime} 6^{\prime \prime}$ | L |
| 9. | $21^{\prime} 6^{\prime \prime}$ | $13^{\prime} 10^{\prime \prime}$ | R |
| 10. | $28^{\prime} 3^{\prime \prime}$ | $10^{\prime} 10^{\prime \prime}$ | L |
| 11. | $35^{\prime} 8^{\prime \prime}$ | $6^{\prime} 1^{\prime \prime}$ | R |
| 12. | $47^{\prime} 5^{\prime \prime}$ | $1^{\prime} 6^{\prime \prime}$ | L |
| 13. | $56^{\prime}$ | $2^{\prime} 6^{\prime \prime}$ | R |
| 14. | $56^{\prime}$ | $2^{\prime} 6^{\prime \prime}$ | L |
| 15. | $56^{\prime}$ | $2^{\prime}$ | R |
| 16. | $56^{\prime}$ | $2^{\prime}$ | $\mathrm{L} 3^{\prime}$ |
| 17. | $64^{\prime}$ | L |  |
| 18. | $64^{\prime}$ | $8^{\prime}$ | R |
| 19. | $79^{\prime}$ | $8^{\prime}$ | L |
| 20. | $93^{\prime}$ | $0^{\prime}$ | Cone dead center on baseline |
| 21. | $93^{\prime}$ | $2^{\prime} 6^{\prime \prime}$ | R |
| 22. | $93^{\prime}$ | $2^{\prime} 6^{\prime \prime}$ | L |
| 23. | $93^{\prime}$ | $2^{\prime}$ | R |
| 24. | $101^{\prime} 6^{\prime \prime}$ | $2^{\prime}$ | $7^{\prime}$ |
| 25. | $101^{\prime} 6^{\prime \prime}$ | L |  |
| 26. | $115^{\prime} 6^{\prime \prime}$ | $7^{\prime}$ | R |
| 27. | $130^{\prime}$ | L |  |
| 28. | $130^{\prime}$ | $2^{\prime}$ | Cone dead center on bascline |
|  |  | $2^{\prime} 6^{\prime \prime} 6^{\prime \prime}$ | L |
|  | R |  |  |








## The Plug



## CRACKERJACK BOX




## The History of Motorcycle Law Enforcement



## Cone Patterns

These are cone patterns used by Motor Units and Officers to keep up and improve their riding skills.

## 'The Cone'

Though it seems like a giant
It's really quite small.
And actually quite harmless

But feared by us all.

No matter how long you've ridden
Or how good you think you are,
"The Cone" will let you know
Before you've ridden very far.
"The Cone" is the master
It makes you turn when you can't,
You'll cut corners and lean
And hang on by the seat of your pants.
"The Cone" pushes you as it guides you
Through each and every turn.
And just when you think you've beat it, You crash and burn.

As you clear the last cone pattern
And your nerves are completely shot,
What you thought was a clean run
Turns out was not!
"The Cone" you hear laughing
As it lays on the ground.
It screams at you saying'
"See ya next year clown, I'll be around!"
By Lt. Stan Kittrell
Hattiesburg, MS Police Depart

## 45 Degree Pull Out <br> 90 Degree Right Turn <br> 180 Decel \#2 <br> 180 Decel HD <br> 180 Degree U-Turn

Ace of Clubs
Ace of Diamonds
Ace of Hearts
Ace of Spades
Al Cannon
Ballpark
Beehive
Big 0
Bo's Back Door
Bo's Back Yard
Brake and Evade
Bruce
Cajun Craze
Capitol
Cooper
COPS Blue Ribbon Slow Ride
Coriolis
Crackerjack Box
Crazy Eight
Da Rouge
Double 360
Eye Of The Storm
El Diablo
Fairfax
Fantastic Four
French Quarter Tour Large
Glock
Glock Measurements
Guitar
Hangman
Harp
Hell's Kitchen
Hourglass
Hurricane Large
In and Out Box
Influlynza
Intersection
L of A Cross
Lane Change
Lollipop
Loopty Loop
Maple Leaf Forever
Maze 1
Maze 2
Maze 3
Maze 4
Mid Atlantic Cone Weave
Might Mississippi Large
Mirror Maze
Mouse Trap
NCS Large
NCS
No Name Large
NW Evergreen
Obstacle Course Lane Change
Offset
Offset Cone Weave

## Offset Cloverleaf

Pitchfork
Plug Pattern
Rattler
Red Stick Cone Weave
Red Stick Cone Weave 2
S Curve No Brake
S Curve
Santa Rosa
Serpentine
Sickle
Slow Cone Weave
Slow Ride
Slow Ride 2
Snowman
St. Chistopher
Star
Streetcar Large
Super Offset
T-Bone Twist
The Capital
The Circle Square
The Cuff
The Kaizer Kross
Tiger Den
Triple Circle
Tritt Shuffel
Turn Obstruction

Vandy
"W"
Winged Wheel
Wrench

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## MOTORCYCLE RIDER SKILL TEST INSTRUCTIONS

This test consists of four riding exercises that measure your motorcycle control and hazard response skills. The final two exercises involve speeds of about 15 mph . You will be scored on time and distance standards as well as path and foot down violations. The test may be ended for point accumulation, committing an unsafe act or failure to understand or follow instructions. You may stop the test at any time, but you must complete the entire test to pass it. Do you understand the instructions I have just read?

## ENGINE STALLING

- Points are assessed if you stall your engine at any time during any exercise.
- Stalling the engine four times during this test is an automatic failure.
- Do you understand the instructions on Engine Stalling?


## CONE WEAVE, NORMAL STOP

- When signaled, ride to the right of the first cone, to the left of the second, and so on. Weave past all five cones without touching or skipping a cone or putting a foot down.
- Turn left and ride toward that side of the course. Make a smooth, non-skidding stop with your front tire inside that box.
- When stopped, your front tire must not touch the painted lines. Remain stopped.
- Do you understand the instructions for the Cone Weave and Normal Stop?
- Wait for my signal to begin.


## TURN FROM A STOP, U-TURN

- When signaled, make a right turn between the boundary lines. Do not touch either line.
- Diagonally, cross to the opposite side of the range and make a left u-turn inside the painted box at the far end of the range.
- Do not touch the solid line (motorcycles 600 cc or more) or the dashed line (motorcycles less than 600 cc ) or put a foot down.
- Stop with your front tire inside that box and wait for further instructions.
- Do you understand the instructions for the Turn From a Stop and U-Turn?
- Wait for my signal to begin.


## QUICK STOP

- Position your motorcycle on that T.
- On my signal, accelerate straight up this path. Stabilize your speed between $12-18 \mathrm{mph}$ by the time you reach the first line.
- Maintain a steady speed.
- When your front tire crosses the second line, stop as fast as you safely can. You will not lose points if you skid.
- Once stopped, do not allow your motorcycle to roll in either direction.
- Do you understand the instructions for the Quick Stop?
- Proceed to the start T, and wait for my signal to begin.


## OBSTACLE SWERVE

- Start at the same start T.
- On my signal, accelerate straight up this path. Stabilize your speed between $12-18 \mathrm{mph}$ by the time you reach the first ine.
- Maintain a steady speed.
- When your front tire passes the second line, swerve to the (right/left).
- Avoid the obstacle line and stay to the inside of the sideline. Do not touch either line.
- Stop smoothly and wait for further instructions.
- Do you understand the instructions for the Obstacle Swerve?
- Proceed to the start T, and wait for my signal to begin.


## 2-Wheel Riding Skill Test

1 - Cone Weave, Normal Stop


4- Obstacle

Distance from end of timing zone to obstacle is 13 ' and obstacle line is $7^{\prime}$ wide. Side lines are 6.5' from ends of obstacle line.


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    Entrance 5 ft ,
    
    $\longrightarrow$
    $\pi$
    

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