

A HOW-TO GUIDE TO **ROUNDAABOUTS**



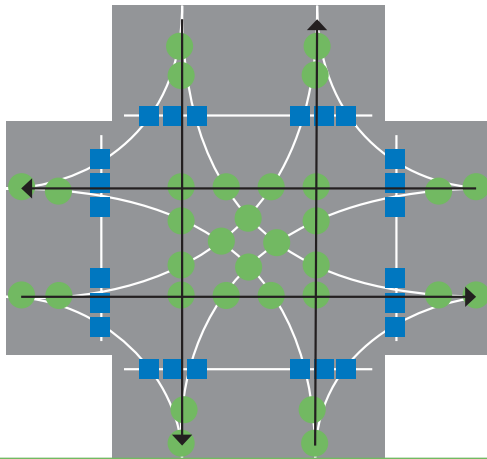
AMERICAN
STRUCTUREPOINT
INC.



- A Yield Line:** The point at which approaching vehicles yield to circulating vehicles
- B Splitter Island:** Directs approaching vehicles toward correct entry path, slows approaching vehicles before entering the roundabout, and provides refuge for pedestrians
- C Multi-use Path:** Provides a safe space for active transportation alternatives that is separate and buffered from motorized traffic
- D Central Island:** A typically circular island around which roundabout traffic circulates in a counterclockwise direction
- E Truck Apron:** Provides a hard surface for the back wheels of large vehicles to roll across without damaging the roundabout center island, allowing the size of the roundabout to be reduced and minimizing the impact to adjacent land owners.
- F Pedestrian Crossing:** A designated location where pedestrians can cross the roadway at a point where vehicle speeds are low and pedestrian visibility is high; pedestrians also benefit from the refuge provided by the splitter island, allowing them to cross one direction of traffic at a time

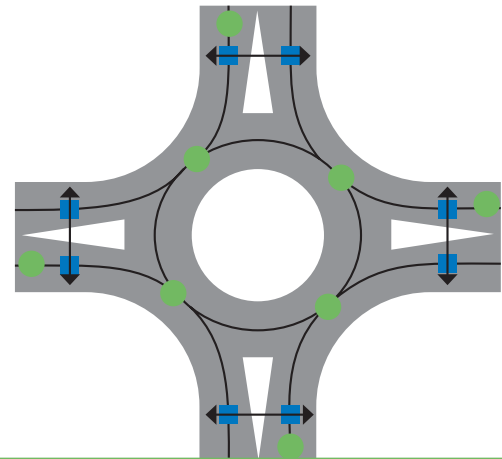
BENEFITS OF A ROUNDABOUT

75% FEWER CONFLICT POINTS
THAN A FOUR-WAY
INTERSECTION



32 VEHICLE-TO-VEHICLE CONFLICTS
24 PEDESTRIAN-TO-VEHICLE CONFLICTS

● Vehicle Conflicts
■ Pedestrian Conflicts



8 VEHICLE-TO-VEHICLE CONFLICTS
8 PEDESTRIAN-TO-VEHICLE CONFLICTS

Each roundabout eliminates 350,000 lbs of CO₂ emissions annually on average.

Roundabouts are resilient in inclement weather and power outages as they are not reliant on overhead structures or electricity.

20,000 gallons of gas consumption are eliminated by each roundabout annually.

ROUNDAABOUTS SAVE LIVES

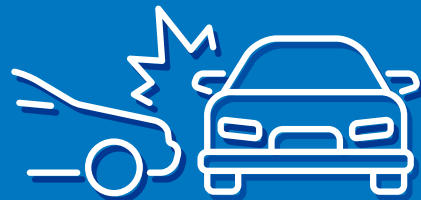
FATAL
CRASHES
REDUCED BY

90%



TOTAL
ACCIDENTS
REDUCED BY

UP TO
40%



75%

REDUCED INJURY ACCIDENTS



ROUNDAABOUTS ARE ENVIRONMENTALLY FRIENDLY



REDUCED TRAFFIC NOISE



FEWER VEHICLE EMISSIONS



IMPROVES WATER
QUALITY WITH REDUCED
HARD SURFACE
(PAVEMENT) AREA



REDUCED FUEL CONSUMPTION



LESS AIR POLLUTION



REDUCES ENERGY
CONSUMPTION AND RELIANCE



NAVIGATING A ROUNDABOUT

STEP 1 CHOOSE A LANE

STEP 2 YIELD

STEP 3 STAY IN LANE

- ✓ As you approach the roundabout, slow vehicle to appropriate yielding speed, taking note of the posted advisory speed upon your approach.
- ✓ Pay attention to signs and pavement markings prior to entering the roundabout to choose the appropriate lane to be in.
- ✓ Yield to any pedestrians in the crosswalk.
- ✓ Look to your left at the yield line and yield to circulating vehicles in the roundabout; they have the right-of-way. If there are no vehicles in the circulating lanes, it is not necessary to stop.
- ✓ Once inside the roundabout, circulate counterclockwise around the central island to your desired exit.
- ✓ After exiting at your desired exit, watch for and yield to pedestrians in the crosswalk.



ROUNDABOUT AHEAD

The roundabout ahead sign informs drivers they are approaching a roundabout intersection.



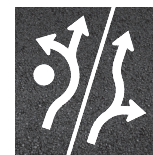
LANE USE SIGN

The lane use sign shows drivers which lanes are used for right turns, left turns, and straight-thru movements.



YIELD SIGN

The yield sign tells drivers to yield to traffic already in the roundabout.



LANE USE ARROWS

Lane use arrows are also shown on the pavement to help identify which lanes are used for right turns, left turns, and straight-thru movements.



WHAT TO DO IF YOU ENCOUNTER AN EMERGENCY VEHICLE AT A ROUNDABOUT

When reacting to an emergency vehicle with lights and/or a siren on, a roundabout should be treated similarly to a traditional intersection.

The main point to remember is never to stop **IN the roundabout.**

If you have not already entered the roundabout:

Pull over to the right side of the road and yield the right-of-way to the emergency vehicle (allow it to pass).

If there appears to be insufficient road width for the emergency vehicle to pass you at the entry to the roundabout:

Quickly proceed through the roundabout to your desired exit, exit the roundabout, and pull over to the right side of the road to allow the emergency vehicle to pass.

If you have already entered the roundabout:

Proceed to your exit, exit the roundabout, and pull over to the right side of the road to allow the emergency vehicle to pass.

AMERICAN STRUCTUREPOINT **ROUNDAABOUT EXAMPLES**



SR 37 + 126TH STREET
FISHERS, INDIANA

- 2-lane, teardrop roundabout bridge
- incorporates multi-use path and state-of-the-art pedestrian crossing features



CHESTNUT RIDGE + SR 83
NORTH RIDGEVILLE, OHIO

- 4-legged roundabout
- included public involvement on behalf of the City



SR 44 + KEPLER ROAD
DELAND, FLORIDA

- 2-lane, 4-legged roundabout
- animation created in-house for public engagement



BASS ROAD + HADLEY ROAD
FORT WAYNE, INDIANA

- 4-legged roundabout
- accommodates a railroad crossing through the center



US 421 + SR 62
SEYMOUR, INDIANA

- high-speed rural roundabout
- first roundabout in community



**YEAGER ROAD +
NORTHWESTERN AVENUE**
WEST LAFAYETTE, INDIANA

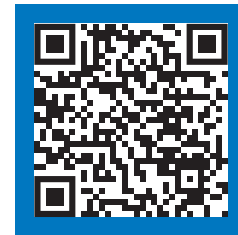
- 3-legged roundabout
- used alignment shifts and retaining walls to minimize impacts

American Structurepoint thrives on project complexity. We use our in-house resources to develop solutions to your project challenges.

American Structurepoint is a nationally recognized leader in the analysis, design, public education, implementation, and operation of roundabouts. To date, we have provided the design and/or conceptual layout or review for more than 300 roundabouts.

**Roundabout design is more than a job to us.
We know roundabouts reduce collisions, and we are committed to helping you improve safety in your community!**

**WE INVITE YOU TO LISTEN TO
AMERICAN STRUCTUREPOINT'S
“MAKE A POINT” PODCAST TO LEARN
MORE ABOUT ROUNDABOUTS.**



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