

# BENEFITS OF A ROUNDABOUT

Slower vehicle speeds  
(generally under 25 mph)

- » Roundabouts are effective at reducing speeds.
- » Reduced speeds are associated with less severe crashes and injuries with an anticipated reduction in fatalities.
- » Less severe crashes enhance safety for motorists, pedestrians, and bicyclists.
- » Motorists have more time to judge and react to other motorists or pedestrians and bicyclists.
- » Advantageous to older and novice motorists.

Efficient traffic flow

- » Yield-control intersections, such as roundabouts, promote a continuous flow of traffic compared to traditional stop or signalized intersections.

Reduction in pollution and fuel use

- » Yield-control intersections, such as roundabouts, often result in reduced time waiting or idling at signalized intersections when no other motorists are nearby, which reduces fuel use and pollution.

Potential money saved

- » No need to power traffic signals 24 hours per day.
- » No need to maintain traffic signal systems or other traffic detection systems.

Community benefits

- » Traffic calming
- » Aesthetic landscaping

Source: Federal Highway Administration



# WHAT IS A ROUNDABOUT?

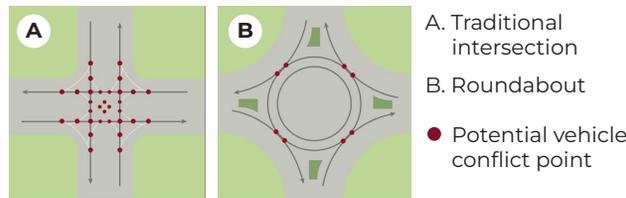
A roundabout is a circular intersection without traffic signal equipment in which traffic flows counterclockwise around a central island where entering traffic has to yield to circulating traffic.

# WHY MODERN ROUNDABOUTS?

Caltrans has a vision to eliminate fatalities and serious injuries on California's roadways by 2050 and provide safer outcomes for all communities as stated in our Director's Policy 36 - Road Safety. This vision can be achieved by adopting the Safe System Approach.

In California, 24% of all fatal and serious injury crashes occur at intersections. Under certain circumstances and at appropriate locations, roundabouts have been shown to potentially reduce the number of fatal and severe injury crashes by 82% over a stop-controlled intersection and 78% over a signalized intersection.

Traditional intersections have 32 vehicle and 16 pedestrian conflict points, while single lane roundabouts have only 8 vehicle and 8 pedestrian conflict points. Because there are no vehicle crossing movements in a roundabout, left-turn and right-angle crashes are eliminated.



Source "2020-2024 Strategic Highway Safety Plan" May 2022 update (California Strategic Highway Safety Plan Report for 2020-2024)

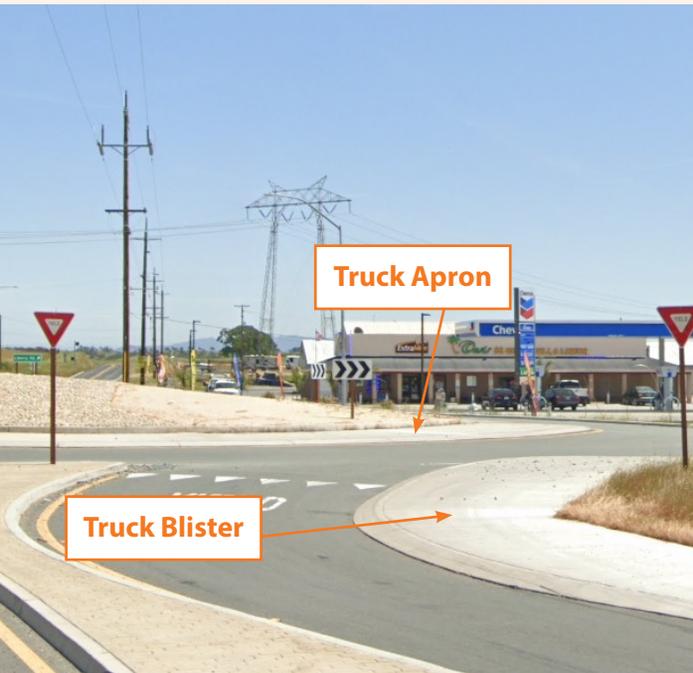
Roundabouts do not work everywhere.



# CALTRANS MODERN ROUNDABOUTS FOR LARGE TRUCKS AND OVERSIZE/OVERWEIGHT VEHICLES

## TRUCK APRONS & TRUCK BLISTERS

Commercial vehicle off-tracking options are available for trucks with trailers by using the truck apron or truck blisters. The truck apron and truck blisters are colored differently from the sidewalk and roadway to show contrast where off-tracking is most likely to occur. The truck apron is located between the circulating roadway and the central island. The truck blisters can be located along the roadway, where needed. Not all roundabouts need truck blisters.



## NAVIGATING A ROUNDABOUT FOR TRUCKS

1. Speeds at a roundabout should be 20 to 25 mph.
2. Pick the lane for your intended path of travel before entering the roundabout following directions provided through signing and pavement markings.
3. Yield to crosswalk users.
4. Yield to vehicles already in the circulating roadway.
5. Enter the roundabout when a large enough gap in vehicles is available to proceed. Truck aprons and/or truck blisters are designed for off-tracking of trailer tires. Do not pass other users of the circulating roadway.
6. Signal when approaching your exit.
7. Yield to crosswalk users at the exit.



## OVERSIZED-OVERWEIGHT VEHICLES

Oversized-overweight (OSOW) vehicle accommodations at roundabouts either include truck aprons and truck blisters designed to accommodate both commercial truck and OSOW truck off-tracking or include an additional mountable curb to provide a wider truck apron for OSOW trucks. Roundabouts accommodating OSOW vehicles that require a California Highway Patrol (CHP) escort may have signs placed outside of the truck apron or truck blisters. Other roundabouts may have removable signs along the OSOW vehicle path. Signs are replaced after the roundabout is safely traversed. Sign removal and replacement on state property is limited to CHP and Caltrans staff only.

## OTHER ROUNDABOUT USERS

Roundabouts are unique intersections where vehicle speeds are reduced using curbs, islands, signs, pavement markings, and striping to direct traffic. Bicyclists have the option to either take the lane to use the roundabout like a vehicle or use the bike ramp to use the sidewalk. When a bicyclist chooses to take a lane like a vehicle, it is important to remember not to pass bicyclists using the roundabout lanes. Pedestrians should use the sidewalk and marked crossings at the roundabout. Yielding to bicyclists near the bike ramp entrances and exits and yielding to crosswalk users is required.