



Traffic Safety Improvements Countywide for the areas of Sabino Canyon Road, Sunrise Drive at Remount Place, Tanque Verde Road, and Tanque Verde Loop Road

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Pima County Department of Transportation

Welcomes You!

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Project Life Cycle



Public Input



You are here

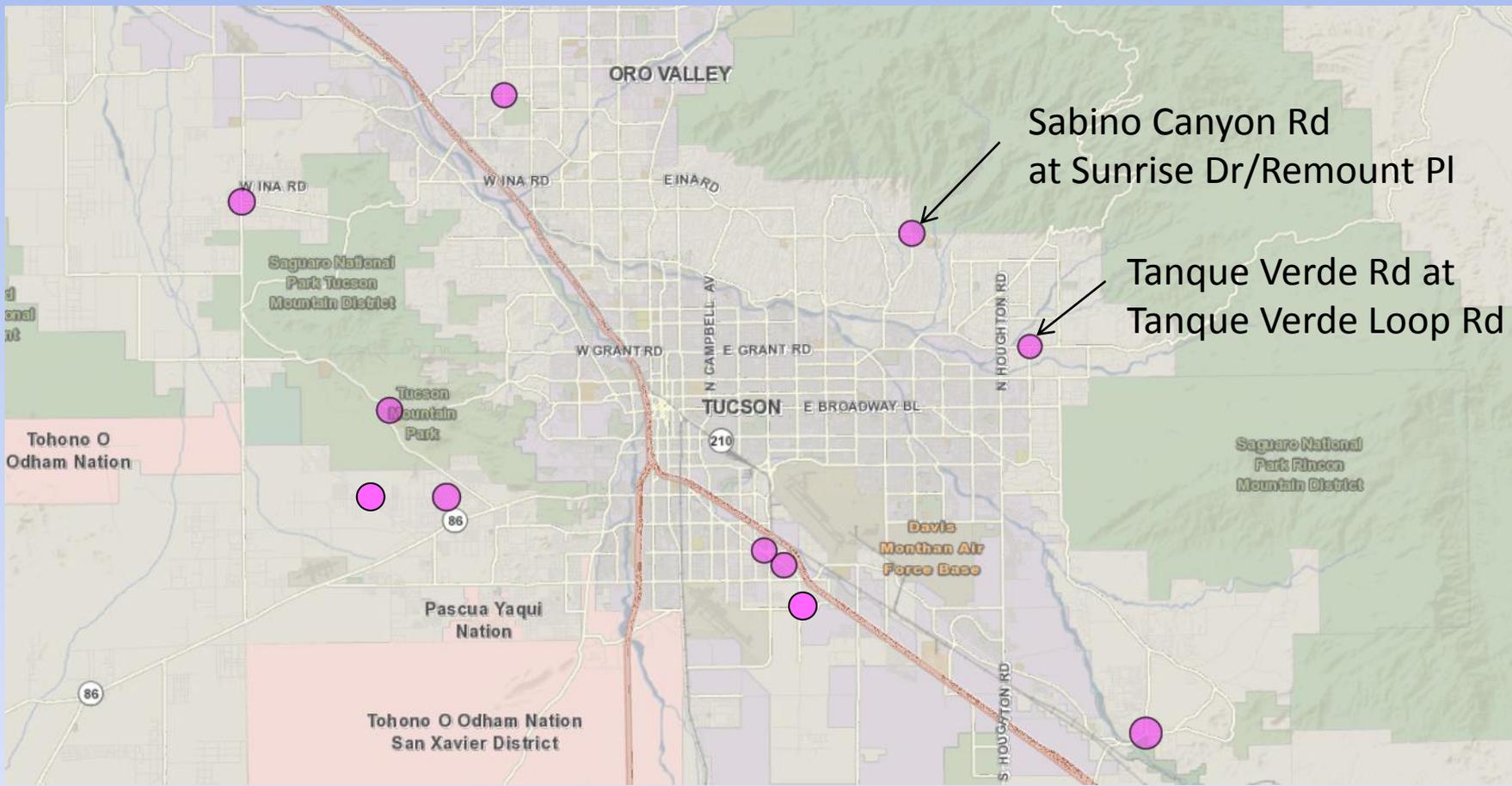


Life Cycle of the Project Development Process

Improvement Project Locations



Proposed safety / capacity related projects



Project Goals

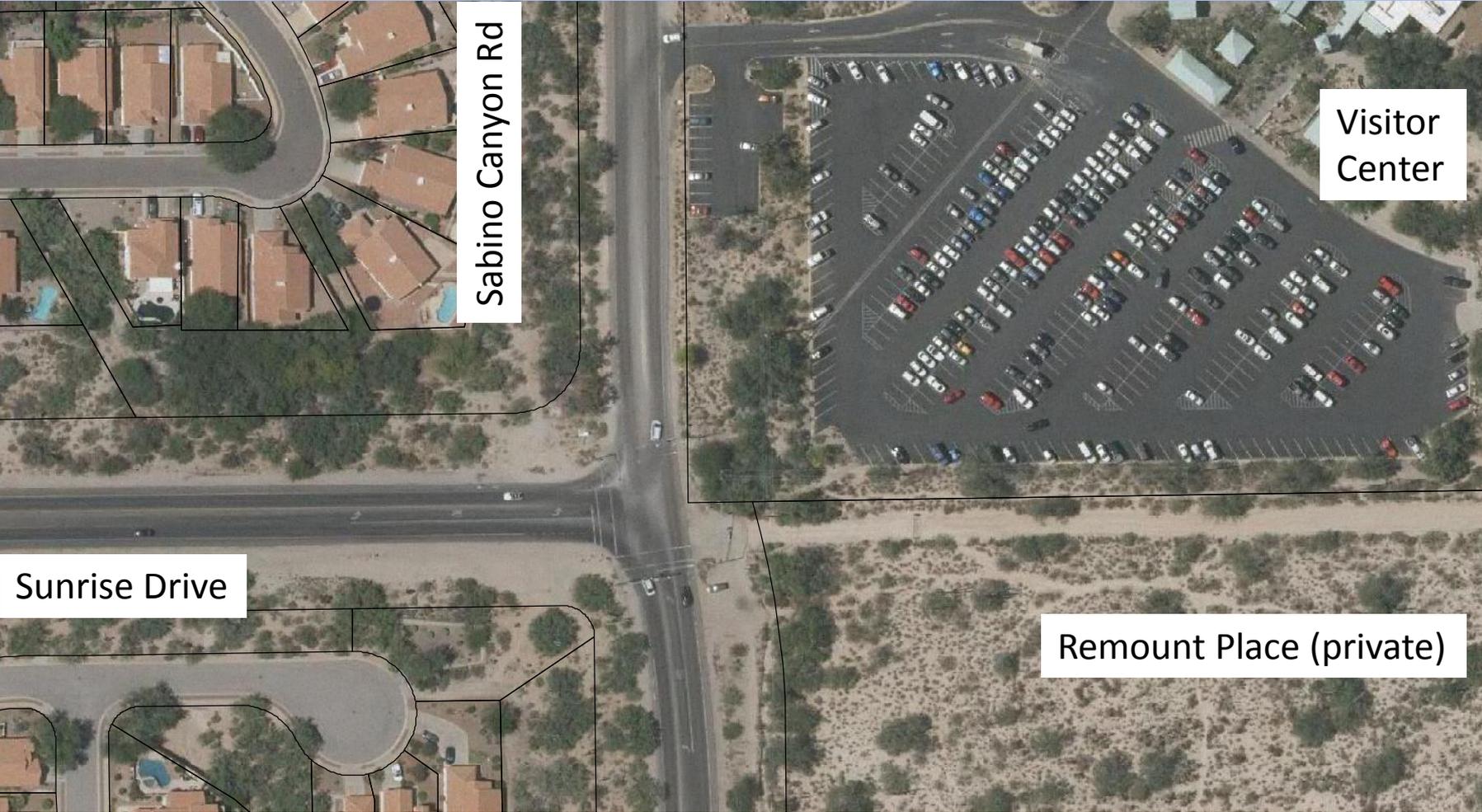


1. Reduce the total number of crashes and reduce crash severity.
2. Improve bicycle and pedestrian safety and access
3. Improve safety by reducing traffic congestion
4. Maintain existing access to businesses and driveways
5. Analyze life-cycle costs with predictive safety methodology
6. Provide improvements based on safety benefits

Project Site #1



Sabino Canyon Rd at Sunrise Dr / Remount Pl



Sabino Canyon Rd

Visitor Center

Sunrise Drive

Remount Place (private)

Traffic Operations

Traffic backs-up from the toll booth onto Sabino Canyon Rd



Traffic Operations

Bicycle, Pedestrian and vehicular conflicts on Sabino Canyon Road



Traffic Operations

Existing Traffic Signal



Traffic Operations



Overflow parking along Sabino Canyon Road

NB Sabino Canyon Road. Photo taken at the School Main Driveway. TAR 31768



Possible Solutions



Sabino Canyon Road at Sunrise Drive / Remount Place

Reasonable alternatives:

- Expand USFS parking lot at the Sabino Canyon Visitor Center
- Improve the intersection of Sabino Canyon Rd at Sunrise Dr/ Remount Place
- Relocate entrance to Sabino Canyon Visitor Center Parking Lot
- Increase vehicular storage for toll booth

Project Site #2



Tanque Verde Rd at Tanque Verde Loop Rd



Traffic Operations



Tanque Verde Rd at Tanque Verde Loop Rd

Safety and Capacity related issues:

- Crash History - 7 property damage crashes, 2 injury crashes and no fatal crashes
- Average Daily Traffic (ADT) – 9,372 vpd and 3,081 vpd on Tanque Verde Rd and Tanque Verde Loop Rd respectively.
- Congested Area

Traffic Operations



Traffic backs-up on
Tanque Verde Loop
in peak hour

Traffic Operations



Congested area due to Emily Gray Junior High School drop-off and pick-up



Project Site



Tanque Verde Rd at Tanque Verde Loop Rd



Possible Solutions



Tanque Verde Rd at Tanque Verde Loop Rd

Reasonable alternatives to solving safety and capacity related issues:

- Improvements to the intersection of Tanque Verde Rd at Tanque Verde Loop Rd
- Improve pedestrian facilities adjacent to Emily Gray Junior High School

Intersection Types

Stop Control

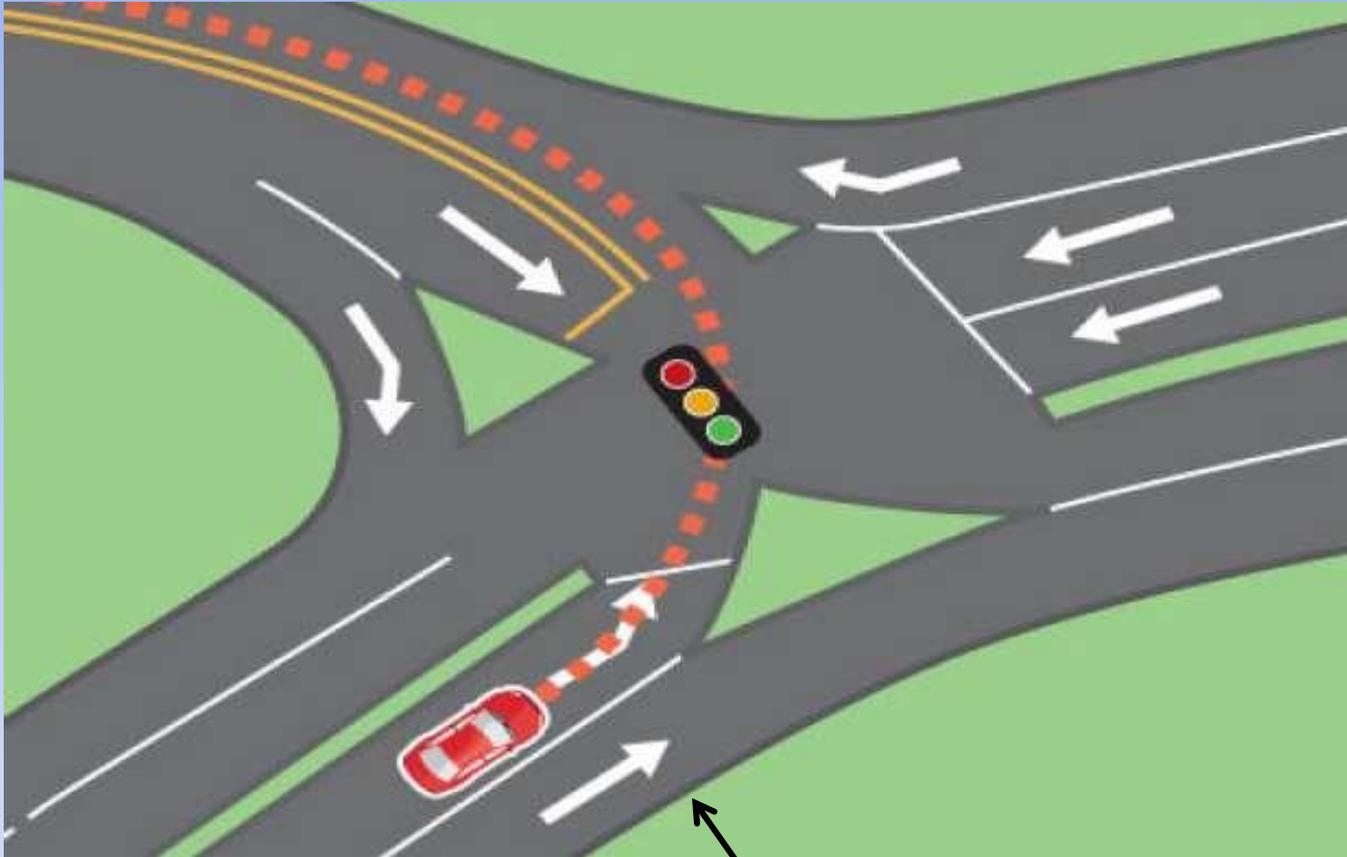
Traffic Signals

Roundabouts



Hannah Olsen E.I.T

Continuous Green T-Intersection



Provides Continuous Green
for through movement

Modern Roundabout Example



96th Street and Cholla Street in Scottsdale

Roundabouts vs. Traffic Signals

- ✓ Fewer & Less Severe Accidents
- ✓ No Red Light Running
- ✓ Slower Speeds (operating speeds 15–23 mph)
- ✓ Improved Pedestrian Safety
- ✓ Faster Commute Travel Times
- ✓ Less Congestion and Delay
- ✓ Increased Capacity
- ✓ Aesthetics
- ✓ Reduced Air Pollution

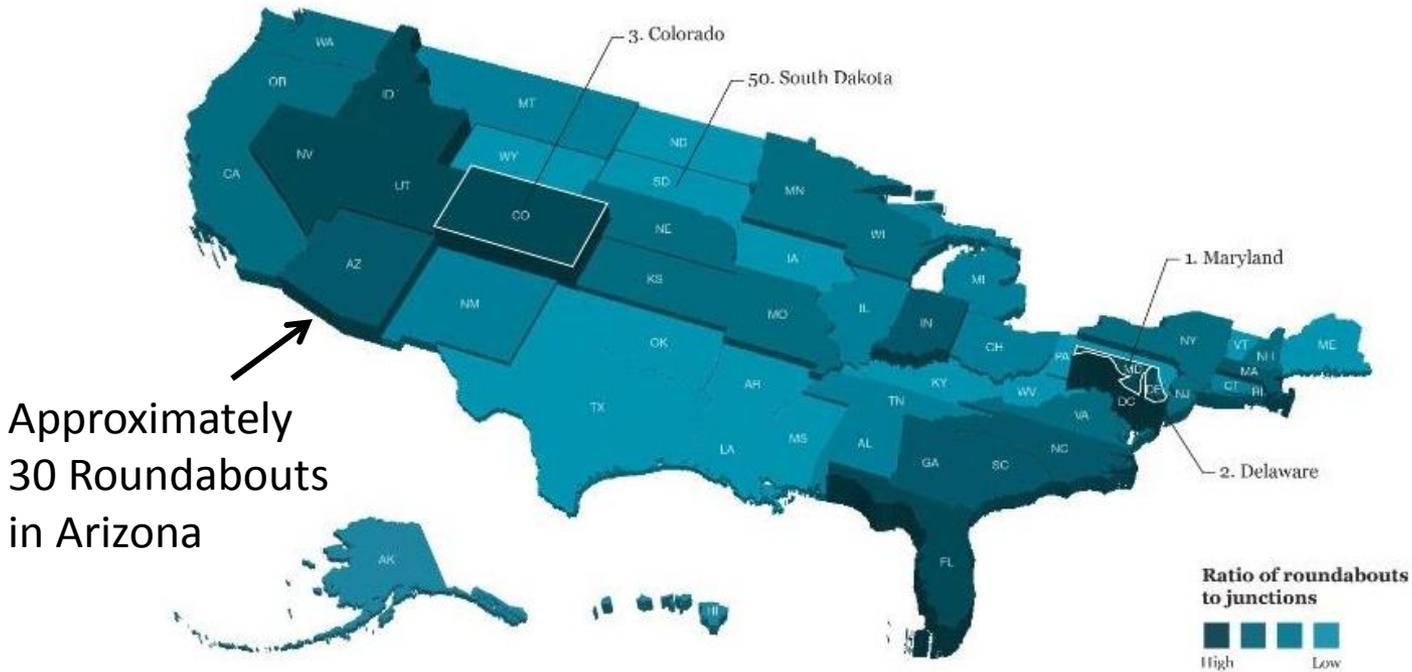
Roundabout Conversion

(click on image to play video)



Roundabout Locations

Source: Nokia's 2014 Here Maps (Graphic by Damien Hauser with ESRI)



Roundabout Locations in Pima County:

- Hardy Rd/ Calle Buena Vista (Town of Oro Valley)
- I-19 at Canoa Rd Traffic Interchange (Green Valley)
- Continental Rd/Camino Del Sol (Green Valley)

Roundabout Locations

Camino Del Sol at Continental Road in Green Valley

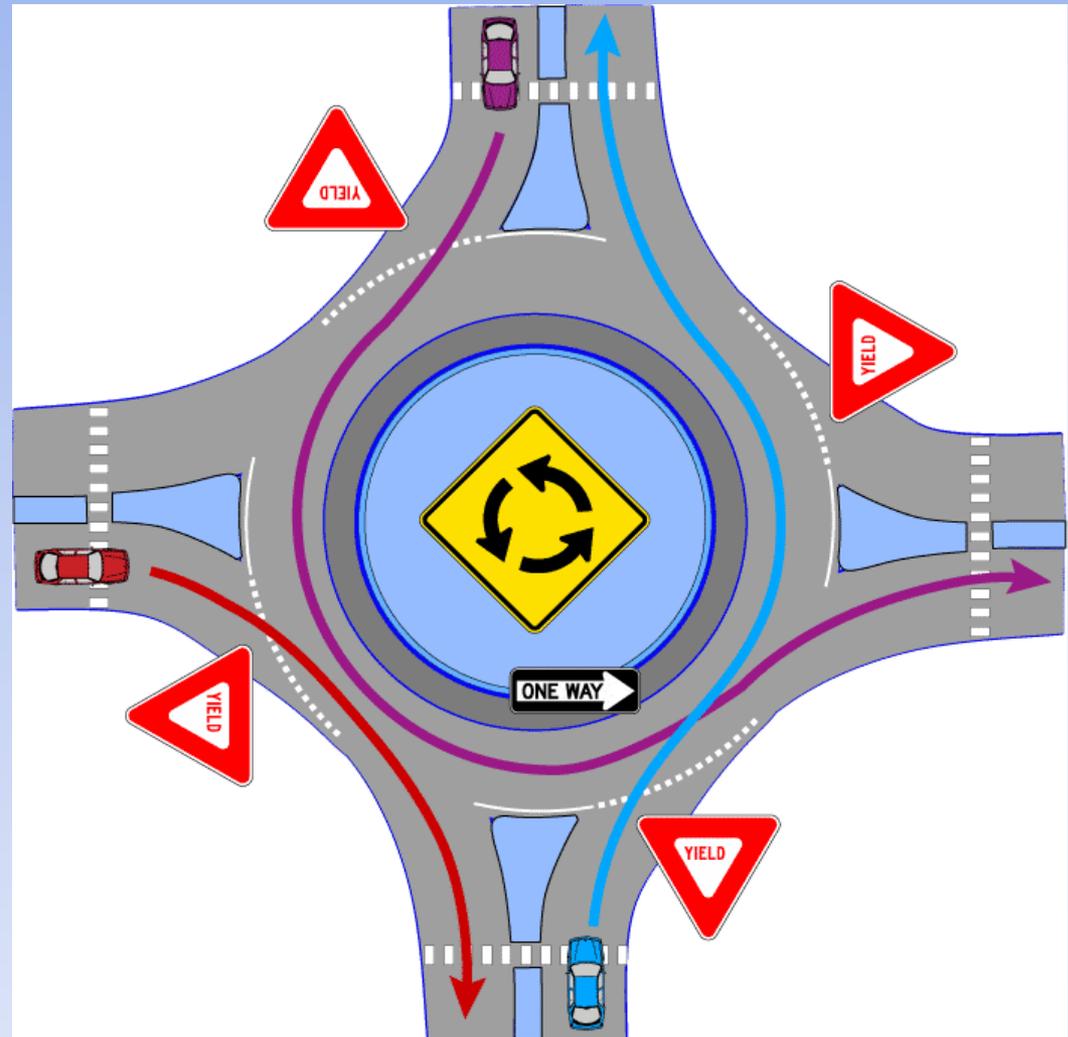


Before: 12 crashes in five years

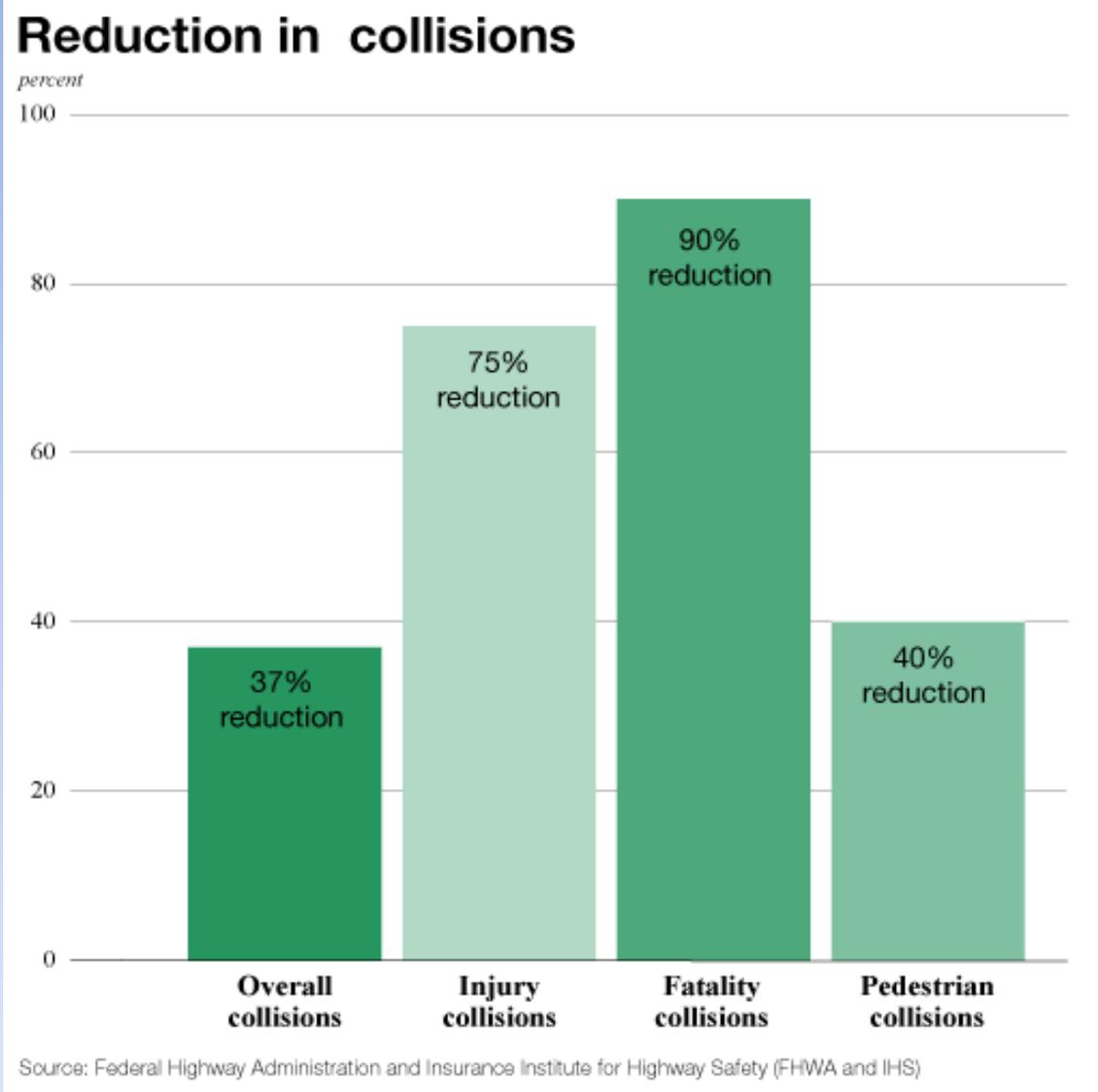
After: 0 crashes in five years

Frequently Asked Questions

- ✓ How to Use Them
- ✓ Vehicular Safety
- ✓ Pedestrian Safety
- ✓ Bicycle Safety
- ✓ Large Trucks
- ✓ Buses
- ✓ Fire Engines
- ✓ Emergency Vehicles
- ✓ Access to Businesses
- ✓ Cost
- ✓ Aesthetics



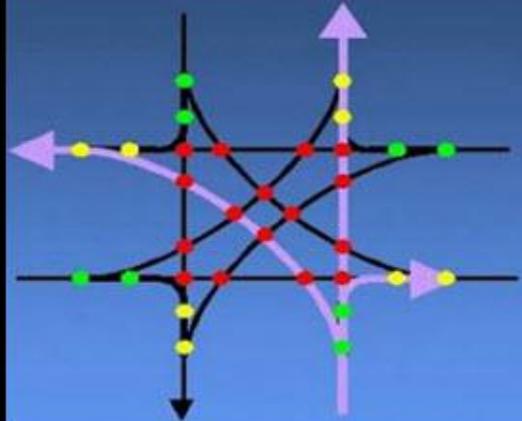
Roundabouts and Safety



Conflict Points at Intersections



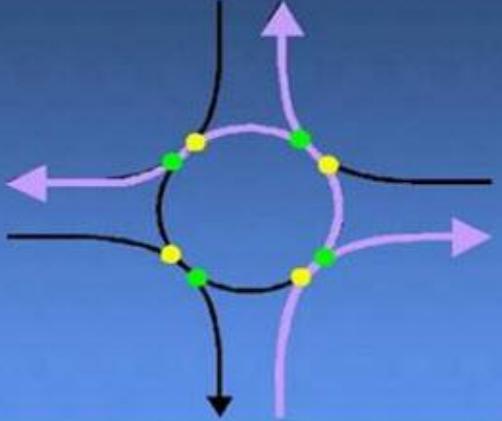
Vehicle conflict points: Conventional intersection



Conflict Types	
● Diverge:	8
● Merge:	8
● Crossing:	16
Total:	32

vs.

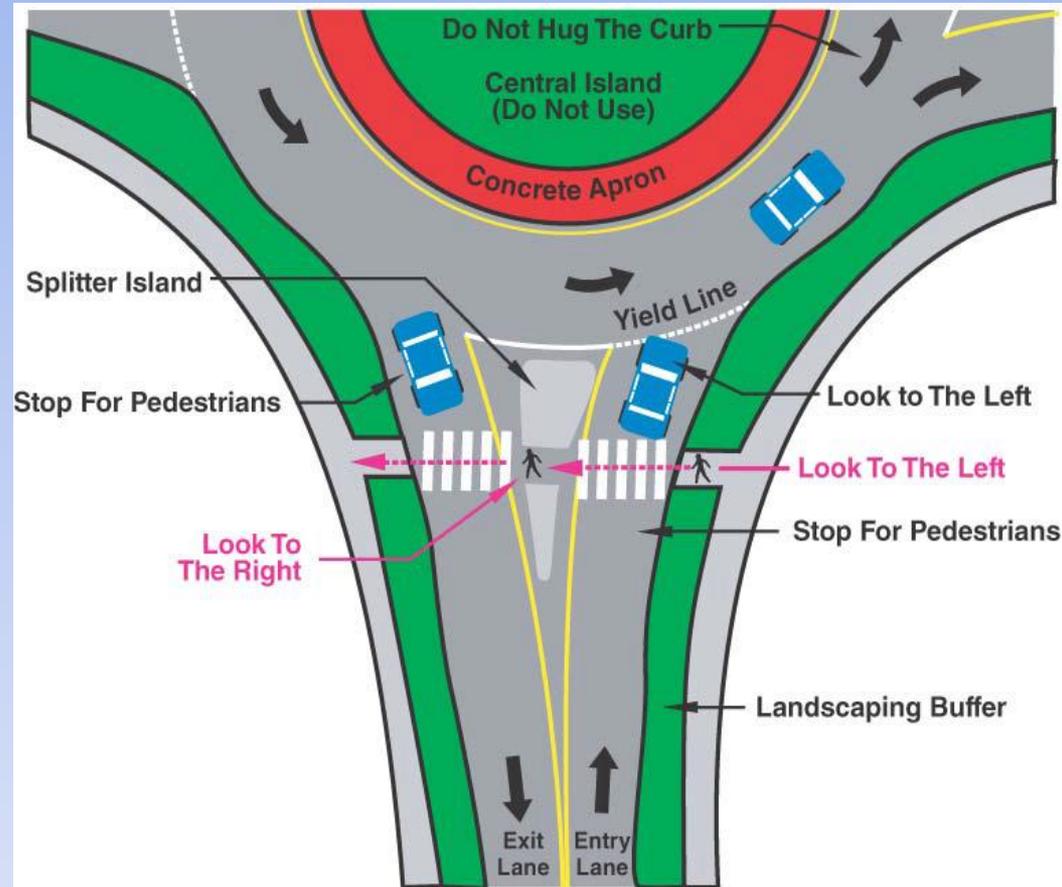
Vehicle conflict points: Roundabout



Conflict Types	
● Diverge:	4
● Merge:	4
● Crossing:	0
Total:	8

Pedestrian Safety

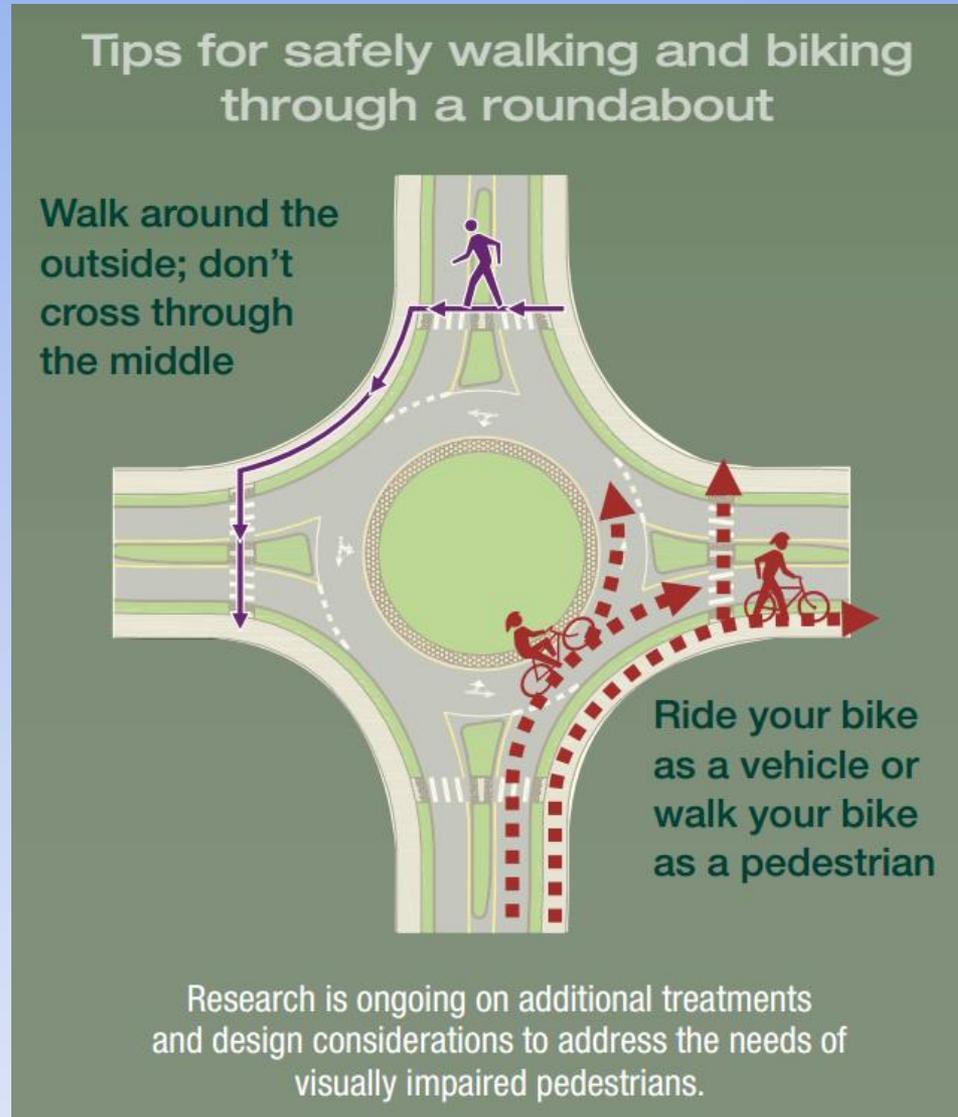
- Roundabouts are safer than signalized intersections
- Slower traffic speeds
- Two-stage crossing for pedestrians
- Crosswalk set back from circulatory roadway



Bicycle Safety

TIPS for using a Roundabout:

- Riders follow the same rules as vehicles.
- Be assertive when merging with traffic.
- Riders should travel at approximately the same speed as motorists.
- Cyclists should ride in the center of the lane, not along the curb line.
- Be sure to use proper hand signals when exiting the roundabout.



Buses



104th Street & Cactus Street in Scottsdale

Semi-Tractor Trailers

(click on image to play video)



Fire Trucks

(click on image to play video)



Access to Businesses



- *Most business owners agree that slower speeds and safer travel enhance business*
- *Roundabouts provide better access to businesses near the intersection than traffic signals because roundabouts do not have left-turn storage lanes with raised medians*

Roundabouts Landscaping



More Information on Roundabouts

Pima County Department of Transportation website:

<http://webcms.pima.gov/Transportation/Single-Lane Roundabouts>

Arizona Department of Transportation website:

<https://azdot.gov/about/transportation-safety/roundabouts/overview>

Federal Highway Administration Roundabouts - An Informational Guide:

<https://www.fhwa.dot.gov/publications/research/safety/00067/000671.pdf>

NCHRP Report 672 – Roundabouts: An Informational Guide

https://onlinepubs.trb.org/.../nchrp_rpt_672.pdf

RoundaboutsUSA: www.roundaboutsusa.com

Roundabout Resources: www.roundaboutresources.org