VISION ZERO
OSCEOLA COUNTY
Counting down to zero traffic deaths

WELCOME

metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

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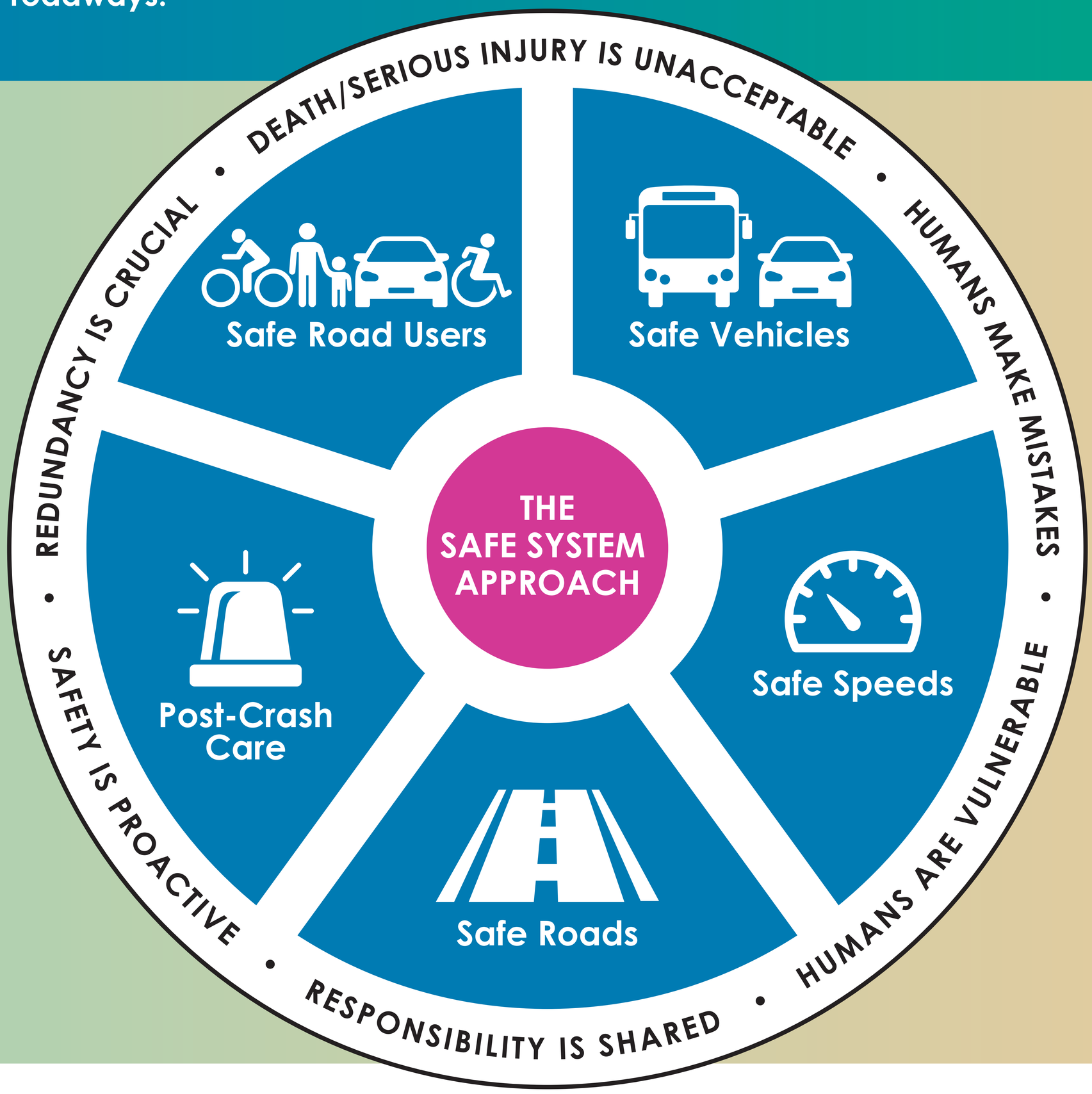
Safe System Approach

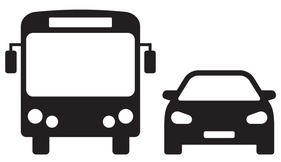
The Safe System Approach emphasizes a focus on reducing and eventually eliminating crashes that result in a fatality or serious injury on our roadways. It takes a holistic view of the transportation system that anticipates human mistakes and seeks to keep impacts of crashes at levels the human body can withstand.

Vision Zero advocates for implementing this approach, which focuses on five elements of a safe transportation system, that together can provide layers of protection against death and serious injuries on our roadways:



Safe Road Users

The Safe System Approach considers the safety of all road users including those who walk, bike, drive, ride transit and travel by other modes.



Safe Vehicles

Vehicles should be designed thoughtfully and appropriately regulated to limit the severity of crashes and ensure that technology related to safety measures is adequately incorporated.

Safe Speeds

High-speed crashes raise the risk of severe injury or death exponentially as vehicle speed increases. The Safe System Approach encourages traveling at speed limit, following the laws of the road, and promoting design that allows drives to stop in time and have enhanced visibility.

Safe Roads

The Safe System Approach advocates for the use of a series of proven countermeasures to make our roads safer through design. Some examples of countermeasures include providing a separated bicycle facility, improving the visibility of pedestrian crosswalks, and installing rumblestrips to prevent lane departures.

Post-Crash Care

Post-Crash Care considers all of the systems in place to provide support when a crash has occurred. This includes law enforcement, emergency responders, forensic analysis at the crash site, and traffic incident management.

Source: FHWA

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Vision Zero

Definition:

Vision Zero is an international movement to reach zero traffic fatalities. Vision Zero Central Florida's goal is simple: saving lives. Zero traffic deaths. Everyone should be able to travel safely around Central Florida without the fear of death or serious injury.

Vision Zero recognizes that humans make mistakes and therefore the transportation system should be designed to minimize the consequences of human error. The Vision Zero approach is fundamentally different from the traditional traffic safety approach in American communities in **six key ways**.

1. Reframes traffic deaths as preventable.
2. Integrates human failing into the approach.
3. Focuses on preventing fatal and severe crashes rather than eliminating all crashes.
4. Aims to establish safe systems rather than relying on individual responsibility.
5. Applies data driven decision making - using facts and metrics to guide strategic choices aligned with goals.
6. Establishes road safety as a social equity issue, identifying the need for improved impartiality, fairness and justice.

How do we get to Vision Zero?

Vision Zero is holistic and includes a variety of strategies, including behavior, infrastructure, legislative, and policy changes.

Vision Zero evaluation establishes a high injury network (HIN) where most serious crashes happen and identifying root causes of crashes that may be infrastructure or behavior based.

Vision Zero also identifies short-term fixes and strategies where they're most needed, along with long-term projects that will transform infrastructure.

Traditional Approach

- Traffic deaths are inevitable
- Human behavior needs to be perfect
- We should prevent all crashes
- Individual responsibility is the key to saving lives
- Incorporating safety improvements is too expensive

VS

Vision Zero Approach

- Traffic deaths are preventable
- Plans should anticipate human mistakes
- We should concentrate on preventing fatal and sever crashes
- A safe systems approach is the key to saving lives
- Eliminating deaths and serious injuries is not expensive

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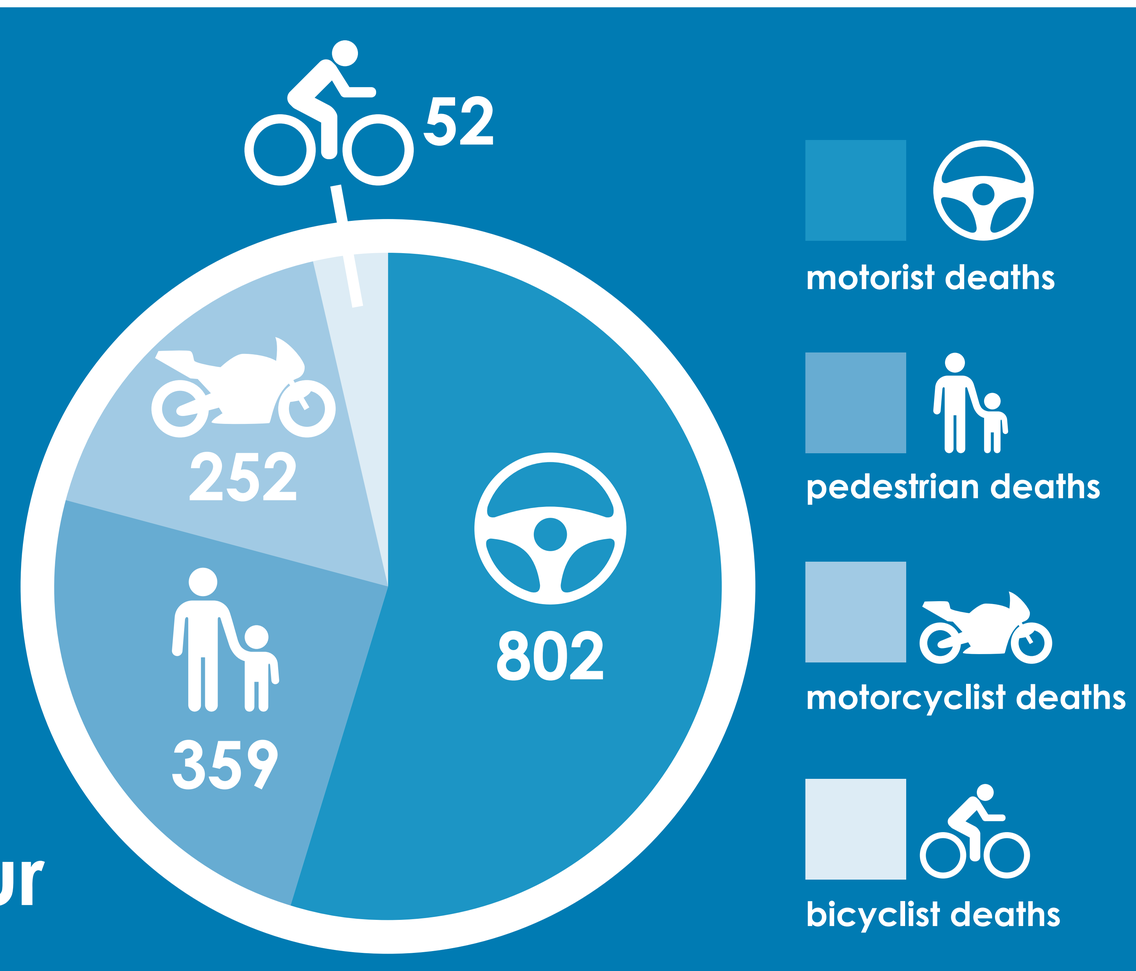
Vision Zero Central Florida

3-County Region (2018-2022)

327,500 total crashes

9,500 serious injuries

1,465 deaths including



41% of our traffic deaths occur on 2% of our roadways.

In Our Region

CRASHES ON HIGH SPEED ROADS

72% of crashes that result in a death or serious injury occur on roads with a posted speed of 40 mph or greater

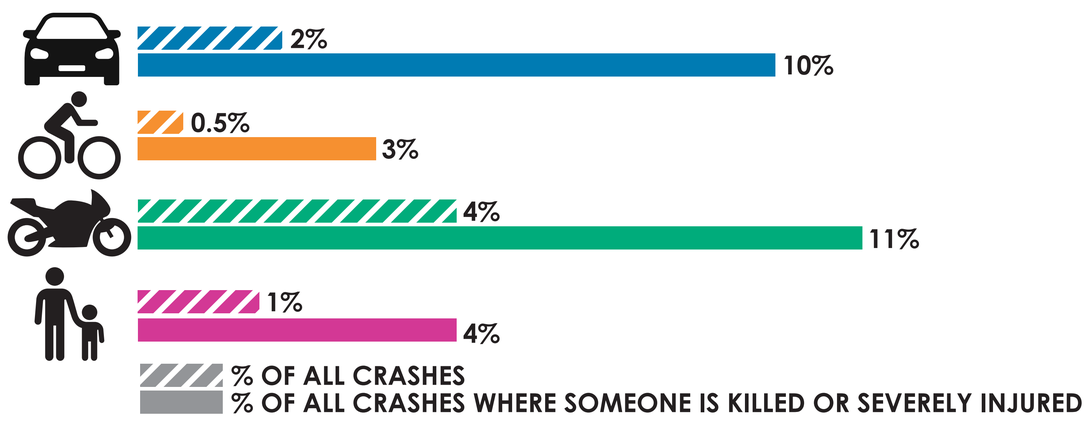
LATE NIGHT CRASHES

Crashes that happen between

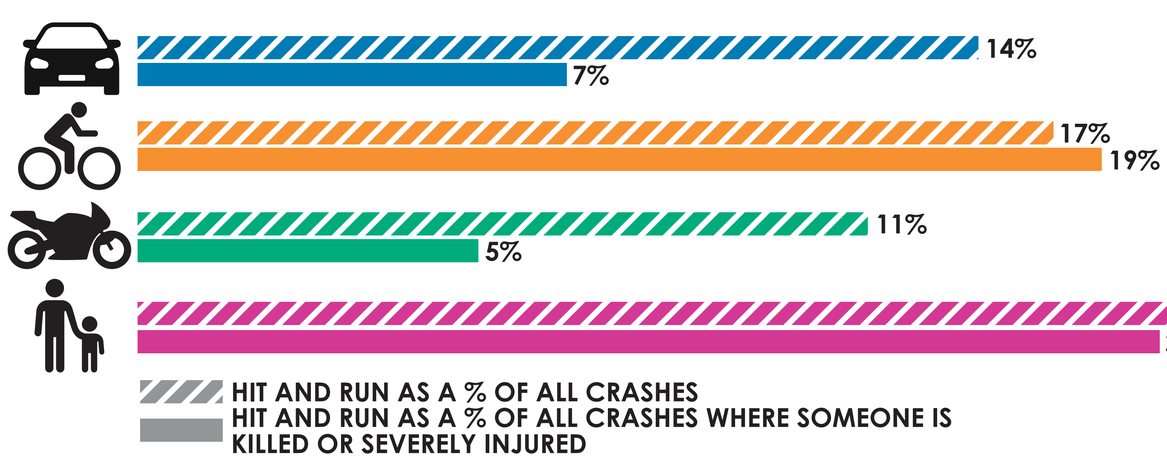
midnight - 6AM

are more likely to result in a death or serious injury

ALCOHOL-INVOLVED CRASHES



HIT AND RUN CRASHES



CRASHES ON MULTI-LANE ROADS

74% of crashes involving death or serious injury to a pedestrian occur on roads with four or more lanes

Vehicle crashes are the most common type of crash on our region's roadways.

However, when it comes to fatalities, almost half are bicyclists, pedestrians, and motorcyclists.

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The Action Plan

This coordinated planning effort led by MetroPlan Orlando in partnership with local agencies will result in a comprehensive **Vision Zero Safety Action Plan** for our three-county region (Orange, Osceola, Seminole), as well as additional action plans tailored for each county and city.

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This work is being funded by a $3.79 million Safe Streets and Roads for All federal grant.

What will the Vision Zero Safety Action Plan Include?

The regional plan and each county or city action plan will include the following:

- **High Injury Network**
- **Equity Component**
- **List of Priority Streets and Intersections**
- **Educational and Enforcement Programs**
- **Sustained Effort**
- **Public Meetings**

Outcome: Identified projects will be included in MPO or local jurisdiction priority projects list for funding/implementation.

OSCEOLA COUNTY (2018-2022)

329 people were killed on our roadways, including:

- **205** motorist deaths
- **50** pedestrian deaths
- **61** motorcyclist deaths
- **13** bicyclist deaths

How Can you Get Involved?

This planning initiative is designed to encourage participation from all members of our region, including community leaders, residents, visitors, and people both young and old. Join us in this quest to eliminate deaths and serious injuries on Central Florida's roads.

We can make progress and save lives in the fight for safety by working together and each doing our part.

Visit our website to review crash data, learn information about the study, and find out about upcoming events:

VisionZeroCFL.gov

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Osceola County Crash Trends

From 2018 to 2022…

- An average of **8,600 crashes** occurred each year
- **Every hour**, someone is involved in a crash
- **Every other day**, someone is incapacitated in a crash
- **Every week**, someone is killed in a crash

Being aware of these trends helps us develop Collision Profiles. These profiles can provide guidance to planners and engineers when selecting appropriate improvements for addressing specific safety concerns on our roadways.

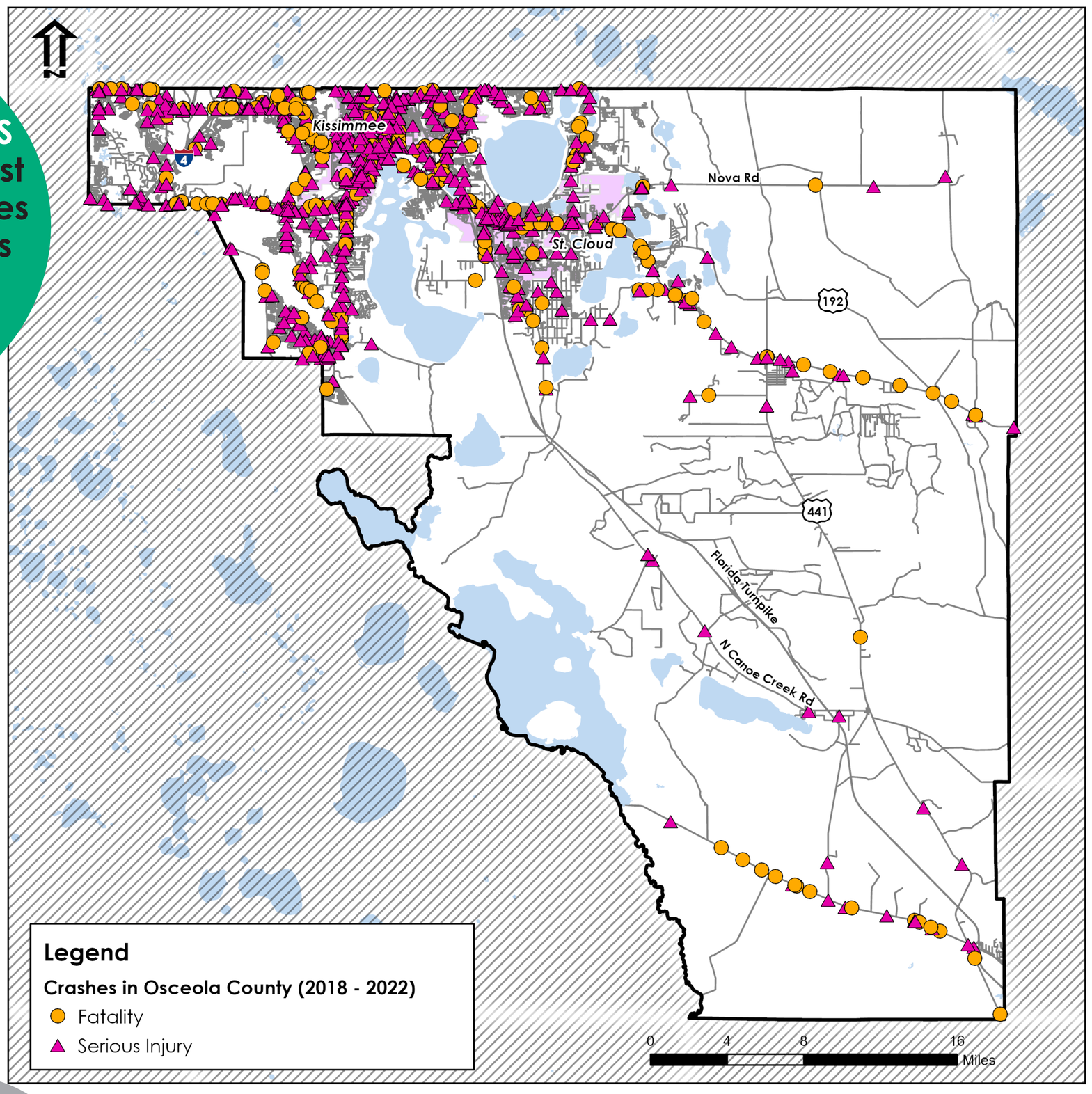
Collision Profiles for Osceola County are grouped into three major areas of concern based on the crash data: Pedestrians, Intersections, and Crashes on Two-Lane Roads.

REAR-END CRASHES make up the highest proportion of ALL crashes

LEFT-TURN CRASHES make up the highest proportion of crashes that involve serious injuries and/or fatalities

CRASHES INVOLVING PEDESTRIANS makeup the highest proportion of all FATAL crashes

Where did these serious and fatal crashes occur?



What are the main contributing factors in crashes involving serious injuries and fatalities?

- Vehicles were traveling at high-speeds, often exceeding 60 miles per hour
- Vulnerable users (bicyclists and pedestrians) were involved
- Crashes were often occurring at intersections
- Crashes were often occurring late at night, in dark conditions

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Crashes Involving Pedestrians

Pedestrian crashes make up the highest proportion of fatal crashes

Profile 1: Midblock Pedestrian Crashes

38%
of midblock pedestrian crashes resulted in **fatality or serious injury**

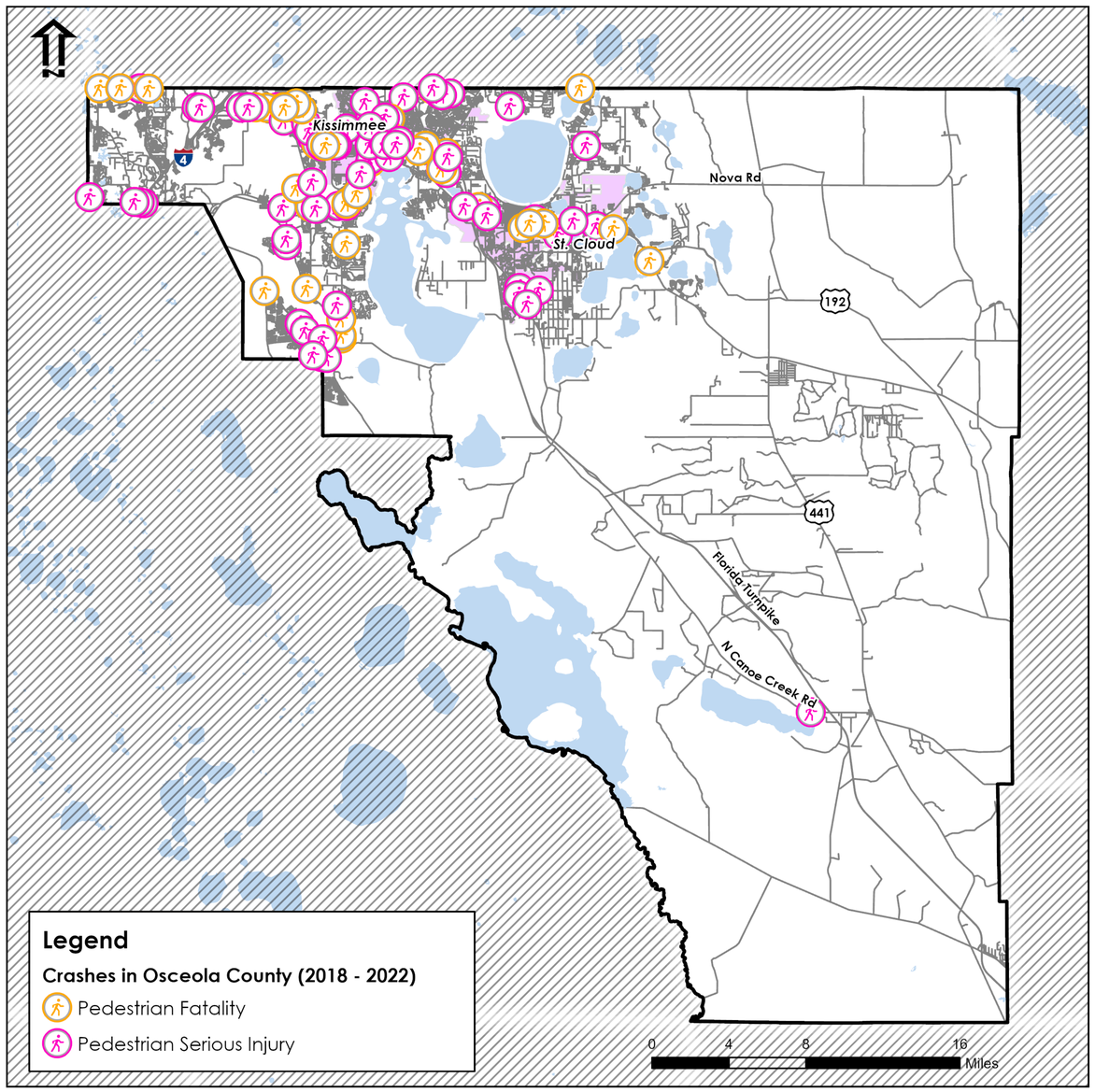
60%
of midblock pedestrian crashes **occurred in the dark**

40%
of midblock pedestrian crashes were caused by a **pedestrian failing to yield**

Profile 2: Intersection Pedestrian Crashes

63%
of intersection pedestrian crashes were caused by a **motorist failing to yield**

42%
of all pedestrian crashes occurred **at or related to intersections**



KSI means the crash resulted in at least one person being killed or seriously injured

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Intersection Crashes

Profile 3: Left Turns

Left-turn crashes make up the highest proportion of crashes resulting in **fatality or serious injury**

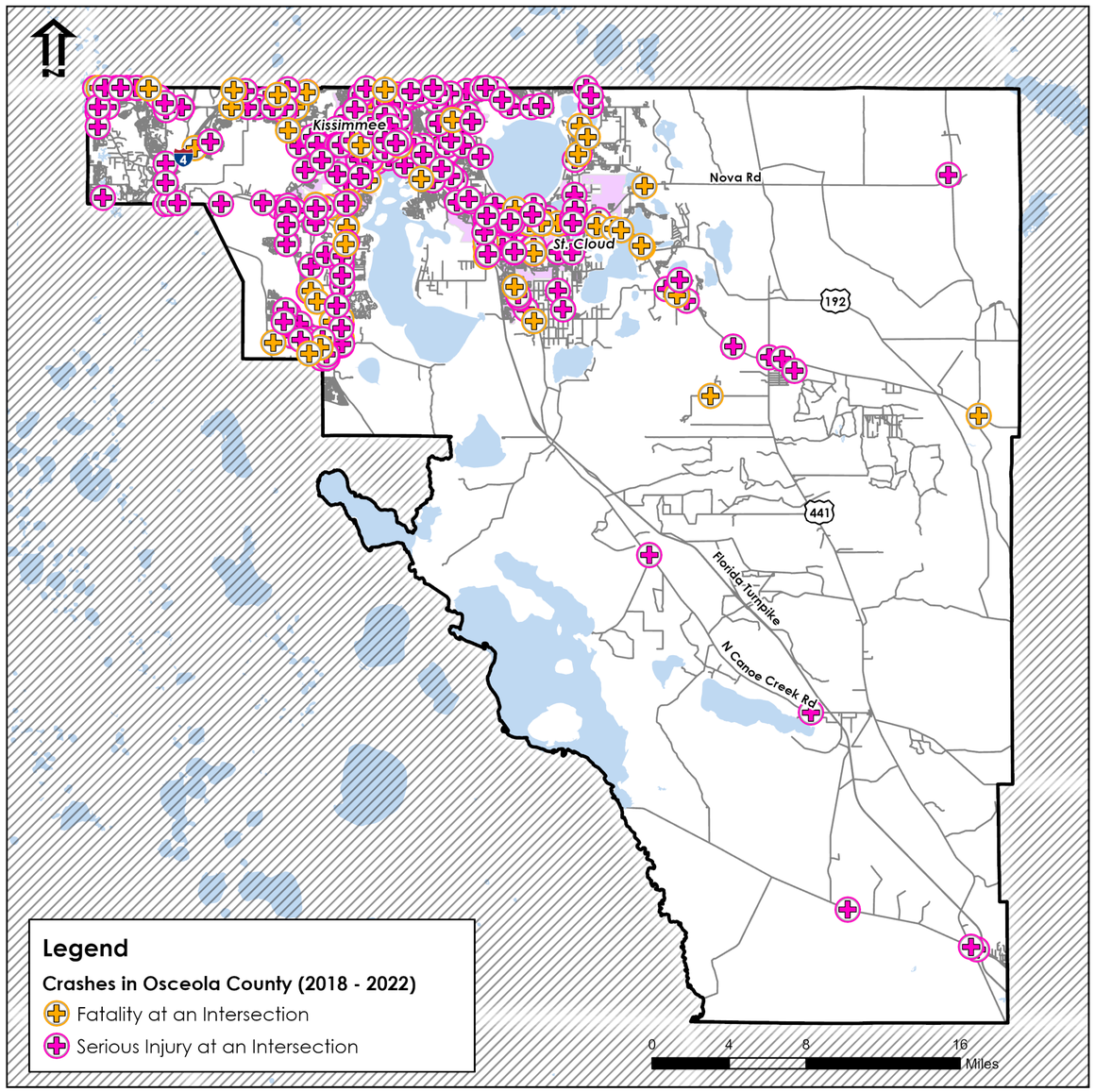
33% of all and **42%** of KSI intersection-related crashes **involved left turns**

3% of all and **24%** of KSI left-turn crashes **involved a motorcycle**

Profile 4: High-Speed On Principal Arterials

Principal arterials comprise **6%** of the roadway network yet experienced **40%** of intersection-related KSI crashes

Roadways with 40-55 mph speeds comprise **15%** of the roadway network yet are the location of **70%** of intersection-related KSI crashes



KSI means the crash resulted in at least one person being killed or seriously injured

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Crashes on Two-Lane Roads

Profile 5: Off-Road Crashes (No Shoulders)

47% of off-road crashes **occur in dark conditions**

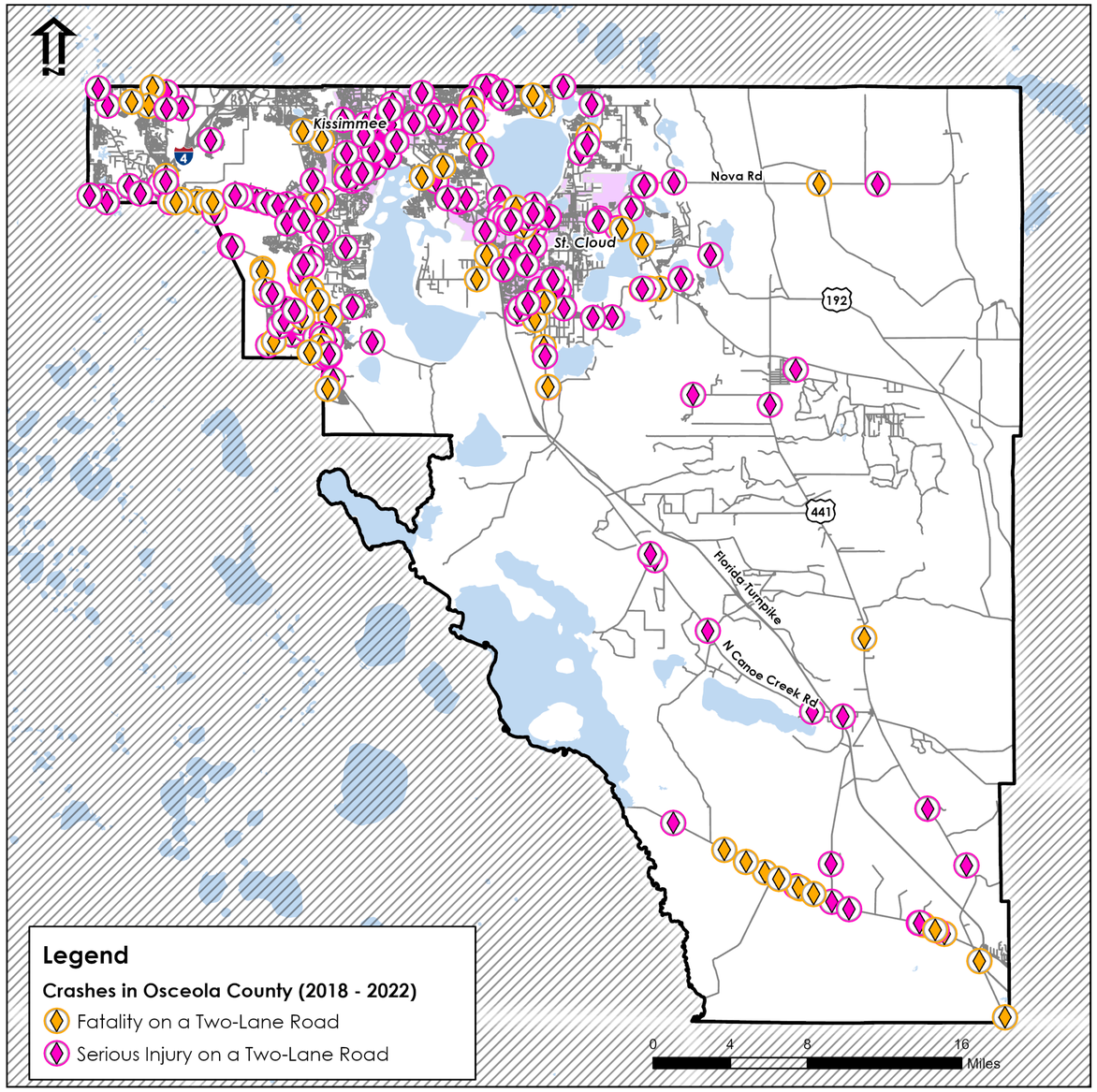
48% of off-road crashes occur **on 2-lane roads** and **25%** of those have **unpaved shoulders**

46% of off-road crashes involved **trees, utility/light poles, and ditches**

Profile 6: Head-On Crashes (Undivided)

46% of head-on crashes occur on **undivided 2-lane roads**

66% of KSI head-on crashes on undivided 2-lane roads **involve speeds of 55-60+ mph**



KSI means the crash resulted in at least one person being killed or seriously injured

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Examples of Engineering Countermeasures: Pedestrians

What is a countermeasure?

For the purposes of the Vision Zero Action Plan, a countermeasure is defined as a strategy that is effective in reducing roadway fatalities and serious injuries on our roads. These strategies were developed for different users (pedestrians, bicyclists, drivers) and different types of roads.

Adding sidewalks provides a separated and continuous facility for people to walk along the roadway, and reduces the potential for people walking in the roadway, conflicting with vehicle travel.

Cost: $$

Add Sidewalk

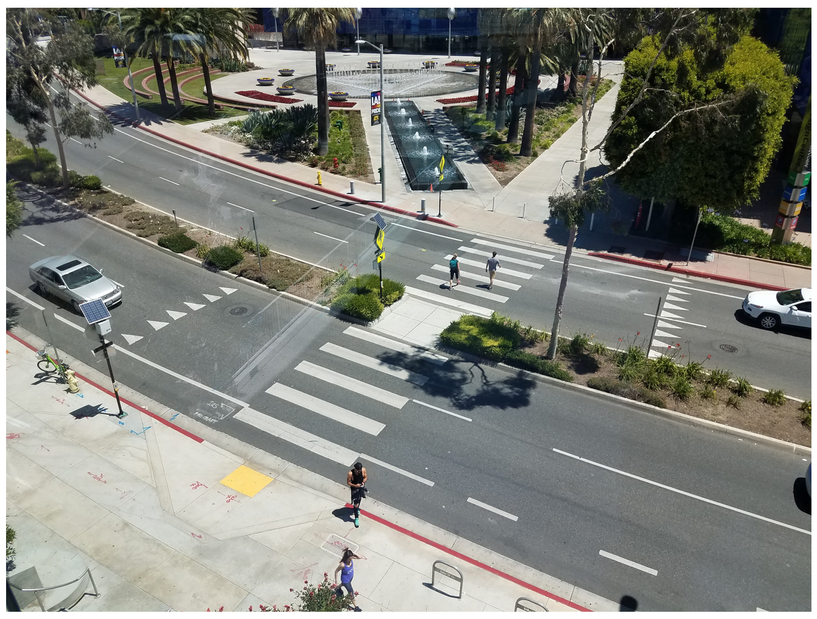
Curb Extensions

A traffic calming measure that extends the sidewalk for a short distance at a crossing location to reduces the crossing distance and increase visibility.

Cost: $$

Crosswalks made from high-visibility material, such as thermoplastic tape, instead of paint, improving safety by increasing the visibility of marked crosswalks.

Cost: $



High-Visibility Crosswalks

Pedestrian Hybrid Beacon

A pedestrian-hybrid beacon (PHB) notifies oncoming motorists to stop with a series of red and yellow lights. Unlike a traffic signal, the PHB rests in dark until a pedestrian activates it via pushbutton or other form of detection.

Cost: $$$

A rectangular rapid flashing beacon (RRFB) is a pedestrian-activated flashing light with signage to alert motorists of a pedestrian crossing. It improves safety by increasing the visibility of marked crosswalks and provides motorists a cue to slow down and yield to pedestrians.

Cost: $$

Rectangular Rapid Flashing Beacon (RRFB)

Shared Use Path

A 12’ foot facility that is separated from the vehicular travel way for use by bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. When adjacent to a travel lane, these are referred to as side paths.

Cost: $$$

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Examples of Engineering Countermeasures: Bicycles

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Separate lanes marked with symbols and signs specifically for bicycles, reducing bike/vehicle conflicts and slowing vehicle speeds via the road narrowing effect.

Cost: $$

Bike Lane/Buffered/Separated Bike Lane

Bicycles may use full lane Signage

Signage that indicates cyclists may use the full lane, discouraging unsafe motorist passage.

Cost: $

Separates the bike facility and transit boarding area, reducing conflict between the two modes, and lowering the risk of collision.

Cost: $$

Floating Transit Island

Parking Buffer

Pavement markings denoting door zone of parked vehicles to help bicyclists maintain safe positioning on the roadway.

Cost: $

A bikeway with physical separation (horizontal and vertical) from vehicle traffic, designated lane markings, pavement legends, and signage, which reduces conflicts between bicycles and vehicles on the road.

Cost: $$$

Separated Bikeway

Two-Stage Turn Queue Bike Box

Roadway treatment for left turns at signalized intersections from the right-side bike lane protecting bicyclists from traffic.

Cost: $

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Examples of Engineering Countermeasures: Intersections

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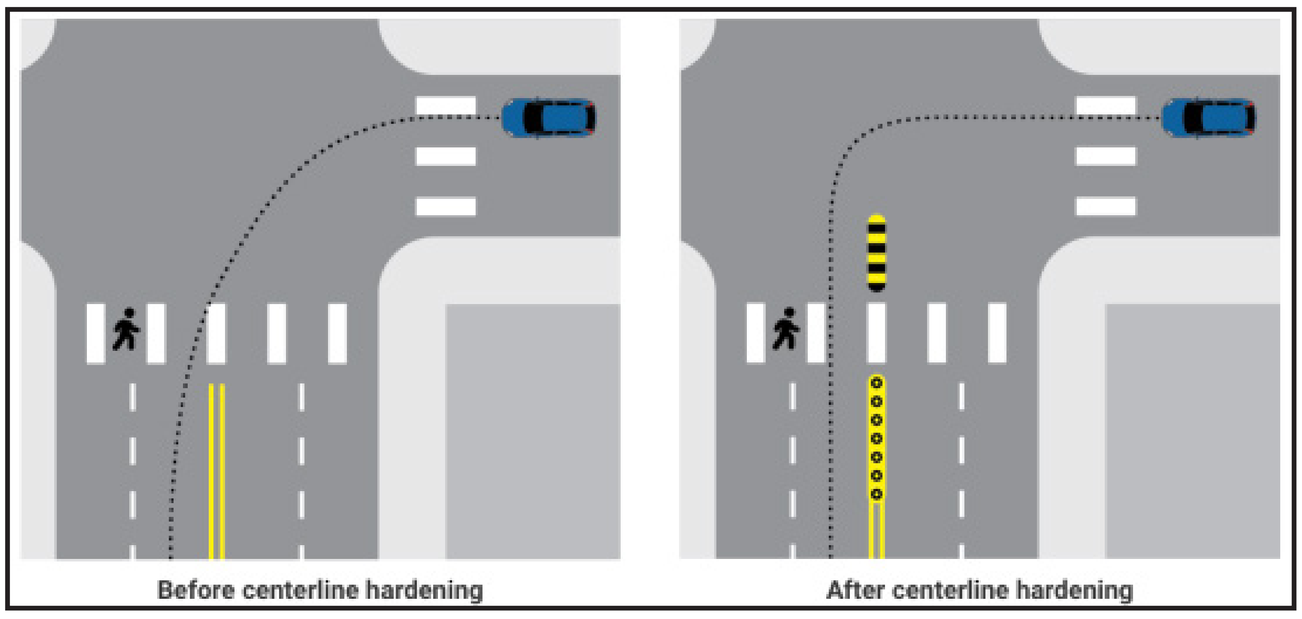
An all-way stop-controlled intersection requires all vehicles to stop before crossing the intersection and better allocates the right-of-way between roadway users.

Cost: $

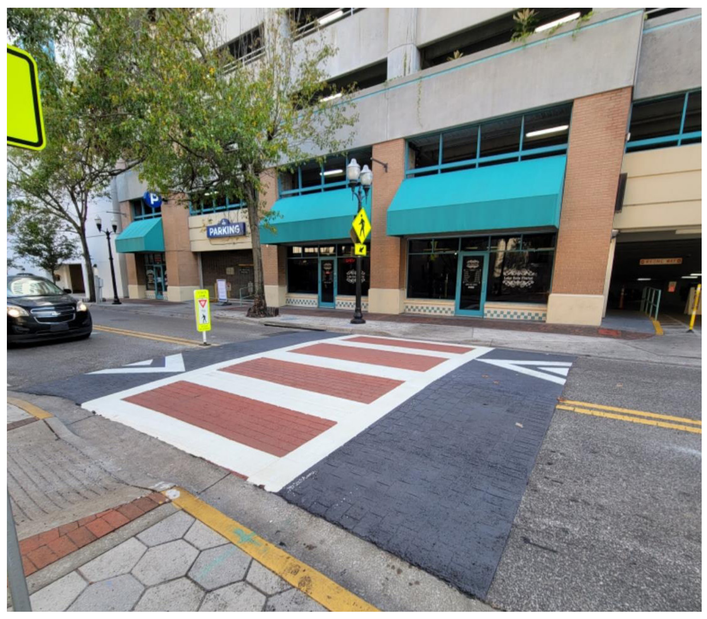
All Way Stop Control



Hardened Median Nose Extension

Raised crosswalks are typically elevated 3-6 inches above the road or at sidewalk level and improves safety by increasing crosswalk and pedestrian visibility and slowing down motorists.

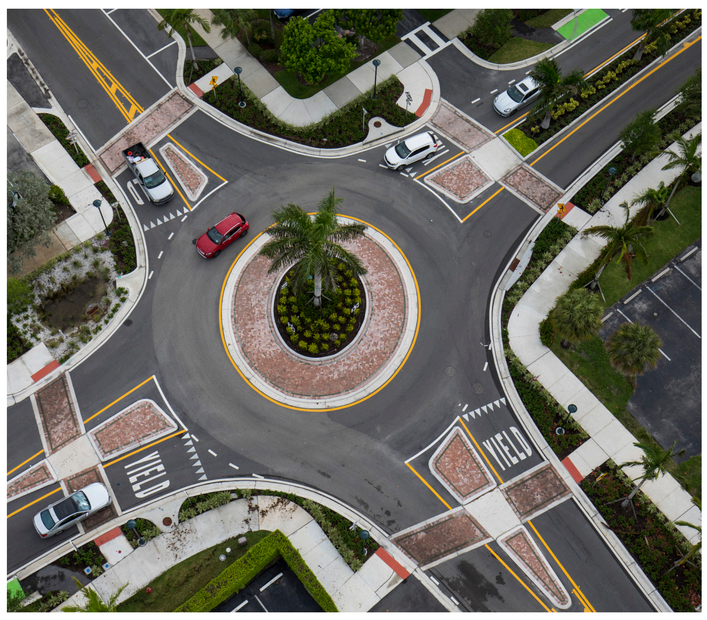
Cost: $$



Raised Crosswalk

A circular non-signalized intersection where traffic flows in one direction that reduces conflict points.

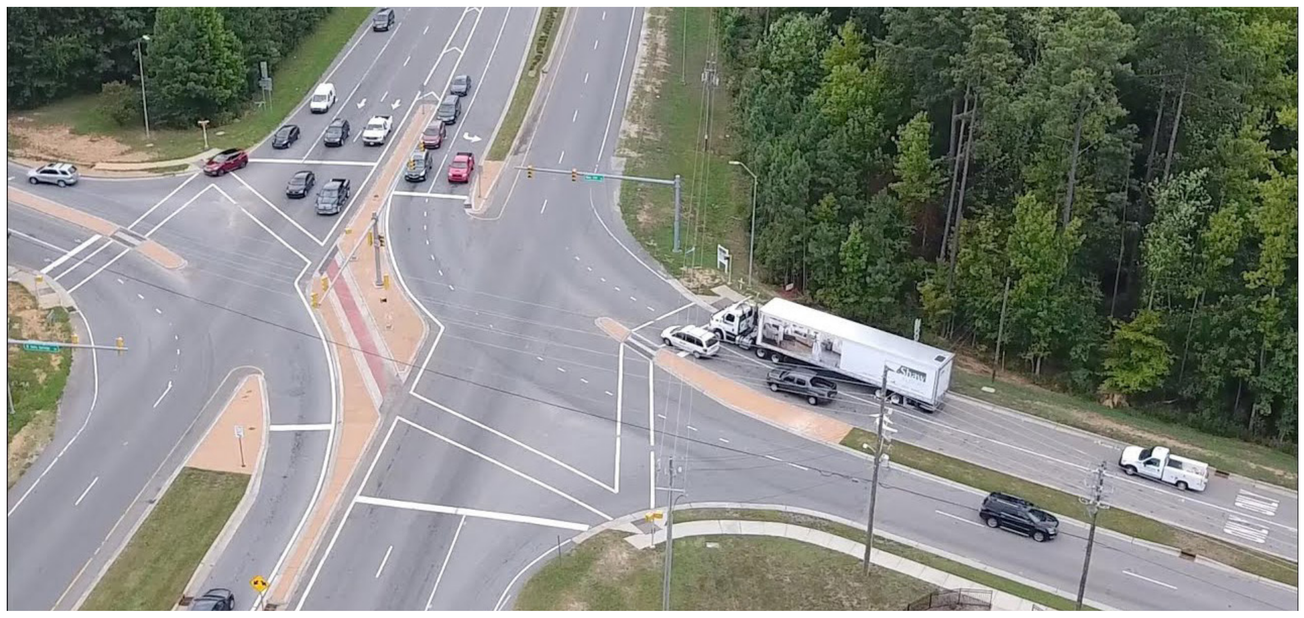
Cost: $$$



Roundabout

An extension of the median nose can reduce pedestrian exposure and can improve the crossing experience of multi-lane roadways. Median noses that extend past the crosswalk protect people waiting in the median and slow turning drivers.

Cost: $



Directional Median Openings to Restrict Left turns / Reduced Left-Turn Conflict Intersection

A median with selective openings that limits the number of turning movement and reduces the number of conflict points.

Cost: $

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Examples of Engineering Countermeasures: Roadway

What is a countermeasure?

For the purposes of the Vision Zero Action Plan, a countermeasure is defined as a strategy that is effective in reducing roadway fatalities and serious injuries on our roads. These strategies were developed for different users (pedestrians, bicyclists, drivers) and different types of roads.

A right of way reallocation can modify the space dedicated to vehicle travel to create space for bicycle facilities, add a buffer to existing bicycle facilities, wider sidewalks, or center turn lanes.

Cost: $$

Lane Repurposing

Crosswalk Density

Short blocks can manage speed by limiting driver acceleration distance between intersections. Where short-blocks do not exist, mid-block crosswalks can be used to simulate the short block effect.

Cost: $$

High friction surface treatments can improve pavement friction under all conditions and help reduce the frequency of crashes by allowing motorists to stop faster than on non-treated pavement.

Cost: $$

High Friction Surface Treatment

Median Barrier

Barrier in the center of the roadway that physically separates opposing vehicular traffic and controls access to and from side streets and driveways, reducing conflict points.

Cost: $$$

Provides a raised barrier restricting certain turning movements and providing a place for pedestrians to wait if they are unable to finish crossing the intersection. It reduces potential conflict points and the exposure of pedestrians crossing the roadway.

Cost: $$

Pedestrian Refuge Island

Safety Edge

A safety edge is intended to minimize drop-off related crashes as the shoulder pavement edge is sloped at an angle (30-35 degrees) to make it easier for a driver to safely reenter the roadway after inadvertently driving onto the shoulder.

Cost: $

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How Speed Affects Traffic Crashes

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SPEED IS A FUNDAMENTAL PREDICTOR OF CRASH SURVIVAL.

IF HIT BY A PERSON DRIVING AT...

20 MPH

DEATH RISK
10%

30 MPH

DEATH RISK
50%

40 MPH

DEATH RISK
90%

RESEARCH SHOWS

Increasing vehicle speeds from **20 MPH** to **40 MPH** increases the likelihood of a pedestrian death when hit from **10%** to **90%**.

SOURCES: PROPUBLICA, VISION ZERO NETWORK

Lower speeds increase a driver's [field of vision] and allow for more time to react to unexpected situations in the road.

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ORANGE COUNTY

POLK COUNTY

OSCEOLA COUNTY

OKEECHOBEE COUNTY

Kissimmee

St. Cloud

East Lake Tohopekaliga

Lake Tohopekaliga

Lake Hatchineha

Cypress Lake

Alligator Lake

Lake Gentry

Lake Kissimmee

Lake Marian

W Osceola Pkwy

Boggy Creek Rd

Dyer Blvd

John Young Pkwy

Michigan Ave

N Poinciana Blvd

N Hoagland Blvd

Neptune Rd

E Lakeshore Blvd

S Nicodossee Rd

S State Hwy 13

Nova Rd

Deer Park Rd

Lime Rock Rd

Old Tampa Hwy

Osceola Polk Line Rd

Poinciana Pkwy

Pleasant Hill Road

Kissimmee Park Rd

5th St

E 10th Ave

Old Canoe Creek Rd

Nolte Rd

Pine Tree Dr

Hickory Tree Rd

Old Brick Rd

Canoe Creek Rd

Southport Rd

Holopaw Groves Rd

Golden Citrus Rd

Florida Turnpike

Ox Pond Rd

Kempfer Rd

N Canoe Creek Rd

10 Mile Rd

Prairie Lakes Rd

Fellsmere Rd

Peavine Rd

N Goodman Rd

Old Lake Wilson Rd

192

429

4

17

530

441

60

0 4 8 16 Miles

N

Legend

- Osceola County HIN Top Intersections - All Roads
- Osceola County HIN - County Roads
- Osceola County HIN - All Roads
- City Boundaries

High Injury Network (HIN)

Osceola County

OSCEOLA COUNTY

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ORANGE COUNTY

Kissimmee

St. Cloud

OSCEOLA COUNTY

Vineland Rd
192
4
Osceola Polk Line Road
Poinciana Pkwy
W. Osceola Pkwy
Carroll St
John Young Pkwy
Donegan Ave
Michigan Ave
Main St
E Vine St
N Poinciana Blvd
N Hoagland Blvd
Thacker Ave
W Emmett St
Old Tampa Hwy
17
Pleasant Hill Rd
S Poinciana Blvd
Marigold Ave
S. Poinciana Blvd
Koa St
Dovetail Ave
E Osceola Pkwy
Buenaventura Blvd
Simpson Rd
Fortune Rd
Neptune Rd
Boggy Creek Rd
Cyrils Dr
East Lake Tohopekaliga
N Narcoossee Rd
S. Narcoossee Rd
Nova Rd
E Irlo Bronson Memorial Hwy
Old Canoe Creek Rd
Canoe Creek Rd
Nolte Rd
Kissimmee Park Road
Lake Tohopekaliga
Florida Turnpike
Pine Tree Dr
Deer Run Rd
Hickory Tree Rd
E Southport Rd
Lake Gentry

Legend

- Osceola County HIN Top Intersections - All Roads
- Osceola County HIN - County Roads
- Osceola County HIN - All Roads
- City Boundaries

0 2 4 8 Miles

N

High Injury Network (HIN)

Osceola County

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E Osceola Pkwy
OBT to Coralwood/Plumwood Cir
Signal modifications and pedestrian facilities

E Osceola Pkwy
Buenaventura Blvd to Sandalwood Dr
Signal modification at Buenaventura, side-street crosswalks

Buenaventura Blvd
Simpson Rd to County Line
Complete streets, access management, signal upgrades

N Poinciana Blvd
Siesta Lago Dr to US 192
Pedestrian crossings, sidewalk, signal upgrades at US 192

E Carroll St
OBT to Michigan Ave
Non-motorist improvements, signal timing optimization

S Narcoossee Rd
Lillian Black Rd to Jack Brack Rd
Stop enhancement, curve delineation, crosswalk at Jones Rd

Clay St
Dawes Ave to Thacker Ave
Non-motorist and transit improvements

S Poinciana Blvd
Eagles Trl to Woodmont Blvd
Signal modifications at Poinciana H.S. and Old Tampa Hwy

S Narcoossee Rd
US 192 to Lillian Lee Rd
Signal upgrades at E 10th Ave, signal timing optimization

Pleasant Hill Rd
Eagle Rock Ln to Knowles Blvd
Pedestrian focused signal modifications and stop enhancements

Nolte Rd
Michigan Ave to Southern Vista Loop
Signal modifications at Michigan Ave

Canoe Creek Rd
Indian Lakes Blvd to Hyleigh Wy
Signal modifications at Nolte Rd

Koa St
Marigold Ave to San Remo Rd
Pedestrian crossings, stop enhancements, signal at San Remo

Pleasant Hill Rd
Old Pleasant Hill Rd to Spinning Reel Ln
Signal updates, access management, stop enhancements

N Doverplum Ave
Country Club Rd to Koa St
Pedestrian crossings, access management, stop enhancements

Kissimmee
St. Cloud
East Lake Tohopekaliga
Lake Tohopekaliga
Lake Gentry
Vineland Rd
N Poinciana Blvd
S Poinciana Blvd
John Young Pkwy
Michigan Ave
Main St
Thacker Ave
N Hoagland Blvd
W Emmett St
W. Carroll St
Donegan Ave
E Vine St
Simpson Rd
Fortune Rd
Boggy Creek Rd
Cyrils Dr
N. Narcoossee Rd
S. Narcoossee Rd
Nova Rd
Neptune Rd
Old Tampa Hwy
Pleasant Hill Rd
Osceola Polk Line Road
Poinciana Pkwy
Marigold Ave
Koa St
Doverplum Ave
E Southport Rd
E Irlo Bronson Memorial Hwy
Old Canoe Creek Rd
Canoe Creek Rd
Nolte Rd
Kissimmee Park Road
Pine Tree Dr
Deer Run Rd
Hickory Tree Rd
Florida Turnpike
192
17
4

Legend

- City Boundaries
- Osceola County - Preliminary Candidate Projects

0 2 4 8 Miles

N

Preliminary Candidate Projects

Osceola County

OSCEOLA COUNTY

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