

Complete Streets



Northeast



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Topics Covered

- Safety Challenges and Crash Facts
- FDOT Policy and Guidance
- Complete Streets Strategies
- District Two Project Examples



SR 26/University Ave in Gainesville (Alachua County)

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Vulnerable Road Users Safety Challenges and Crash Facts



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National Pedestrian Crash Trends and Stats

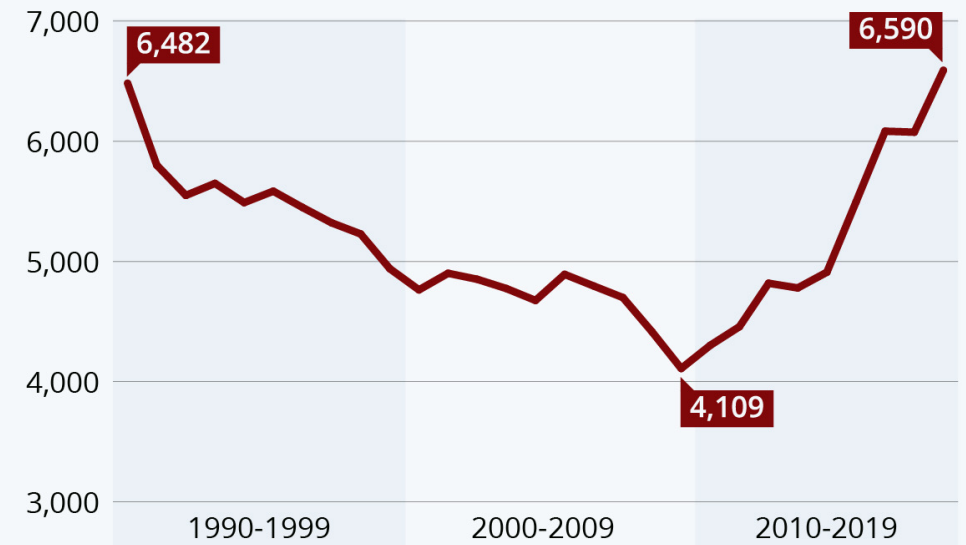
Pedestrian Fatal Crash Trends:

- 76% at night
- 46% some alcohol involvement
- 70% male
- Highest risk at 55-64 years old
- 1 in 5 crashes are "hit-and-run."

Source: FHWA, 2019

U.S. Pedestrian Deaths Hit Highest Level In 30 Years

Pedestrian fatalities in the U.S. by year*



* 2019 is a projection

Source: Governor's Highway Safety Association



statista

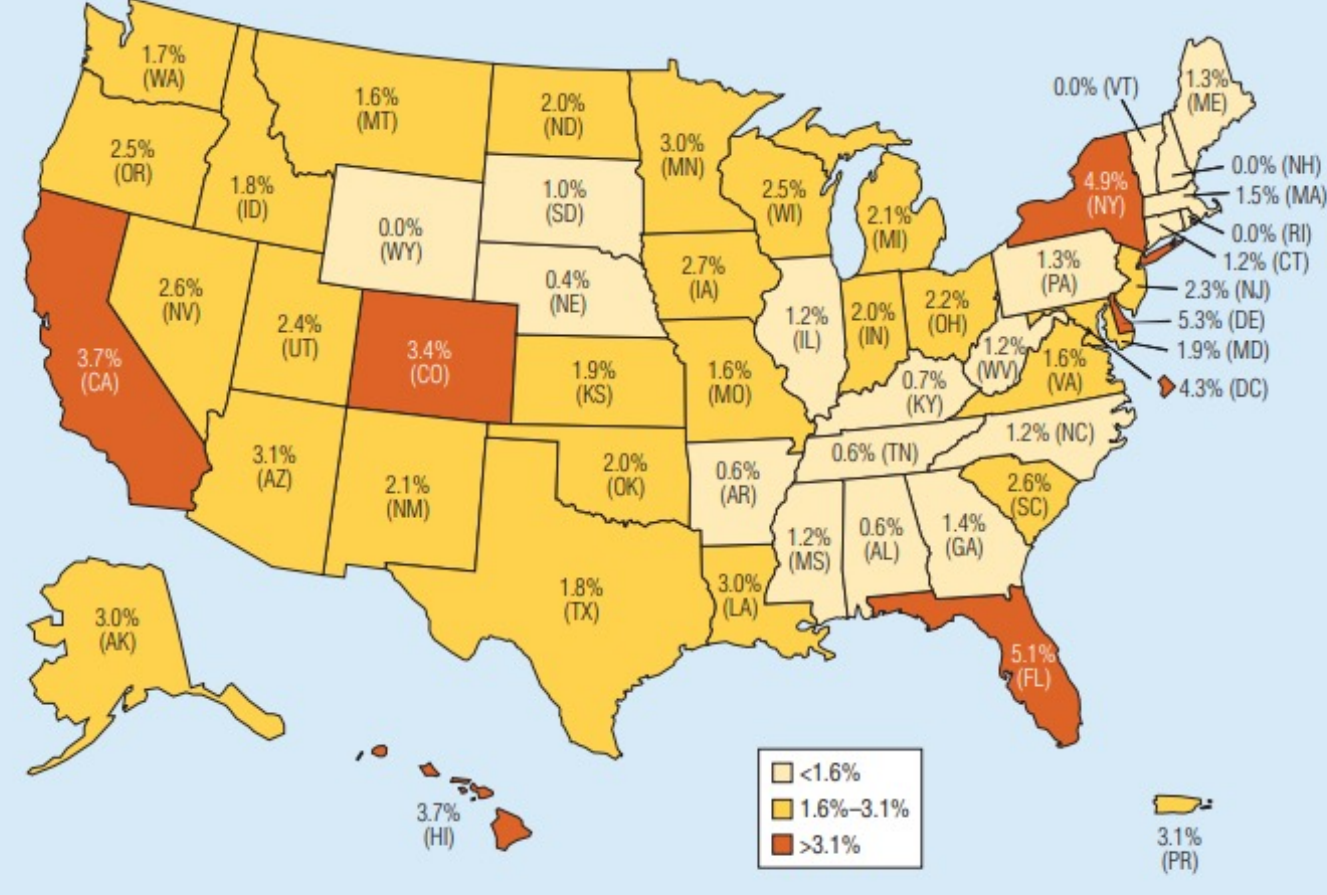
National Bicycle Crash Trends and Stats

Bicycle Fatal Crash Trends:

- 47% at night
- 34% some alcohol involvement
- 86% male
- Highest risk at 55-64 years old
- 78% in urban areas

Source: FHWA, 2019

Bicycle Fatalities as a Percentage of Total Traffic Fatalities by State



Florida had among the highest percentages (5.1%) and the highest number (163) of bicycle fatalities of any state in 2019.

District Two Pedestrian Crash Trends

Pedestrian crashes account for nearly 20% of total fatal crashes in FDOT District Two.

- Four counties (Alachua, Clay, Duval & St. Johns) account 73% of fatal pedestrian crashes and 80% of all reported pedestrian crashes
- 77% of fatal pedestrian crashes occur at night
- 42% of all public road pedestrian crashes and 73% of fatal pedestrian crashes occur on state and US highways



District Two Bicycle Crash Trends

Bicycle crashes account for just under 4% of total fatal crashes in FDOT District Two.

- Three counties (Alachua, Duval & St. Johns) account for 73% of fatal bike crashes and 84% of all bike crashes
- Half of the fatal bike crashes occur at night
- 42% of all public road bike crashes and 59% of fatal bike crashes occur on state and US highways



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FDOT Policy and Guidance



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Definitions: Complete Streets



Florida Department of Transportation

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SECRETARY

POLICY

Effective: September 17, 2014
Office: Design Director
Topic No.: 000-625-017-a

COMPLETE STREETS

It is the goal of the Department of Transportation to implement a policy that promotes safety, quality of life, and economic development in Florida. To implement this policy, the Department will routinely plan, design, construct, reconstruct and operate a context-sensitive system of "Complete Streets." While maintaining safety and mobility, Complete Streets shall serve the transportation needs of transportation system users of all ages and abilities, including but not limited to:

- Cyclists
- Motorists
- Transit riders
- Freight handlers
- Pedestrians

The Department specifically recognizes Complete Streets are context-sensitive and require transportation system design that considers local land development patterns and built form. The Department will coordinate with local governments, Metropolitan Planning Organizations, transportation agencies and the public, as needed to provide Complete Streets on the State Highway System, including the Strategic Intermodal System.

This **Complete Streets Policy** will be integrated into the Department's internal manuals, guidelines and related documents governing the planning, design, construction and operation of transportation facilities.



Auto/Truck Drivers and
Transit Riders

Bicyclists

Pedestrians

SR 13 in Jacksonville
(Duval County)

Streets are designed and operated to enable safe use and support mobility for all users.

FDOT Complete Streets Policy

Complete Streets shall serve the *needs of transportation system users of all ages and abilities*, including but not limited to:

- *Pedestrians*
- *Cyclists*
- *Transit riders*
- *Freight handlers*
- *Motorists*



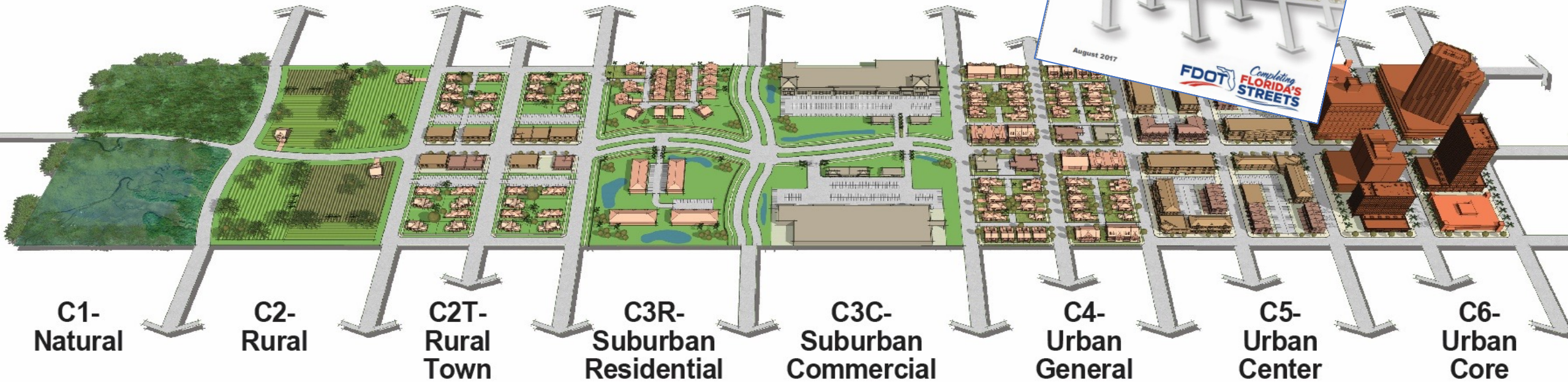
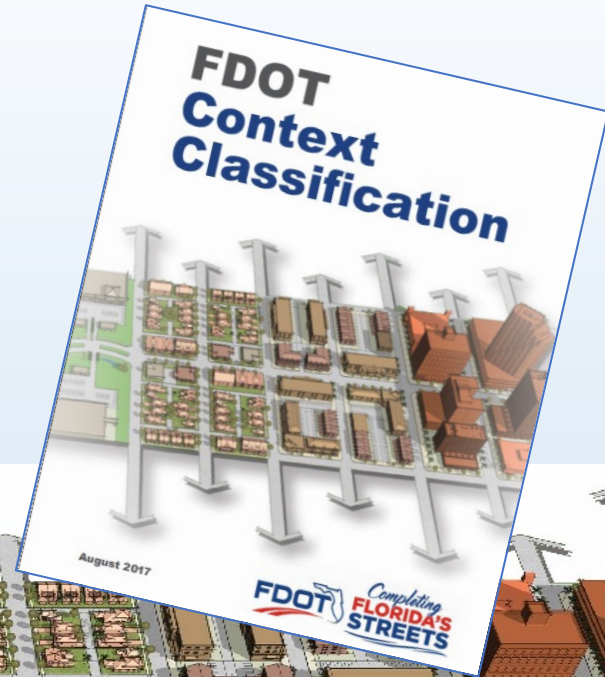
FDOT Complete Streets Policy

This Complete Streets Policy will:

- Be integrated into the Department's internal manuals, guidelines, and related documents.
- Promote safety, quality of life, and economic development.
- Provide a context-sensitive system of "Complete Streets."



Context Classification



Context Classification – C1 Natural



US 17 through the Timucuan Ecological and Historic Preserve (Nassau County)

Lands preserved in a natural or wilderness condition, including lands unsuitable for settlement due to natural conditions.

Context Classification – C2 Rural



*US 17 near San Mateo
(Putnam County)*

Sparsely settled lands; may include agricultural land, grassland, woodland, and wetlands.

Context Classification – C2T Rural Town



*US 90 in Sanderson
(Baker County)*

Small concentrations of developed areas immediately surrounded by rural and natural areas; includes many historic towns.

Context Classification – C3R Suburban Residential



Mostly residential uses within large blocks and a disconnected/sparse roadway network.

Context Classification – C3C Suburban Commercial



*SR 21 in Orange Park
(Clay County)*

Mostly non-residential uses with large building footprints and large parking lots. Buildings are within large blocks and a disconnected or sparse roadway network.

Context Classification – C4 Urban General



Mix of uses set within small blocks with a well-connected roadway network. May extend long distances. The roadway network usually connects to residential neighborhoods immediately along the corridor and/or behind the uses fronting the roadway.

Context Classification – C5 Urban Center



*US 441/SW 13th St in Gainesville
(Alachua County)*

Mix of uses set within small blocks with a well-connected roadway network. Typically concentrated around a few blocks and identified as part of a civic or economic center of a community, town or city.

Context Classification – C6 Urban Core



Areas with the highest densities and building heights and within FDOT are classified as Large Urbanized Areas (population > 1,000,000). Many are regional centers and destinations. Buildings have mixed uses, are built up to the roadways, and are within a well-connected roadway network.

Context Classification – LA Limited Access



*I-75 Northbound
(Columbia County)*

This code (and only this code) is used for roadways with grade separation and limited access such as Interstates and Expressways.

FDOT Design Manual (FDM)

Context-Based Design:

Designs for highway and bridge projects are based on established design controls for various elements of the project such as the width of the roadway, drainage considerations, and intersecting roads.

FDM design criteria are based on:

- Functional Classification
- Design Speed
- Context Classification (New!!!)



Target Speed

The identification of applicable design controls needed to achieve:

- Optimum safety
- Desired capacity
- Desired level of service
- Design consistency
- Cost effective designs

Table 202.3.1 Strategies to Achieve Desired Operating Speed

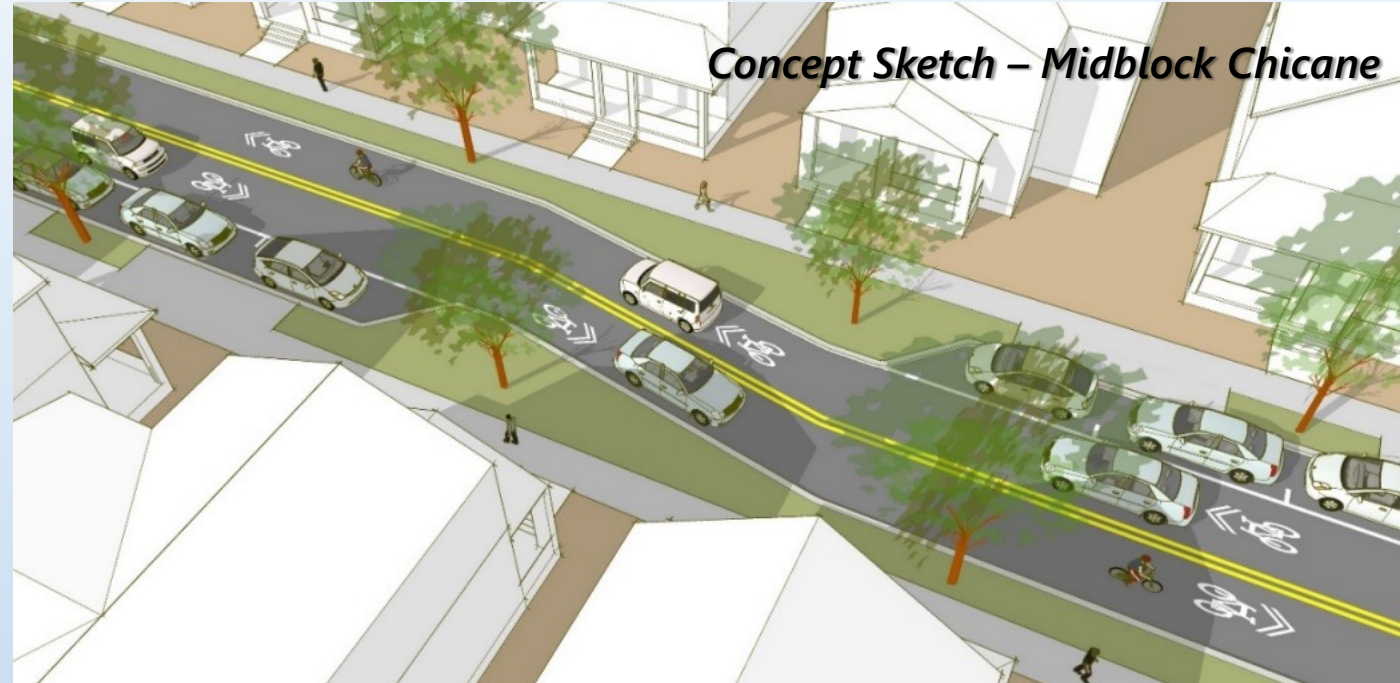
Context Classification	Target Speed (mph)	Strategies
C1	55-70	N/A: Speed Management Strategies are not used on high-speed roadways. See FDM 202.4 for information on transitions from high-speed to low-speed facilities.
C2	55-70	N/A: Speed Management Strategies are not used on high-speed roadways. See FDM 202.4 for information on transitions from high-speed to low-speed facilities.
C2T	40-45	Roundabout, Lane Narrowing, Horizontal Deflection, Speed Feedback Signs, RRFBs and PHBs
	35	Techniques for 40-45 mph, plus On-street Parking, Street Trees, Short Blocks, Islands at Crossings, Road Diet, Bulb-outs, Terminated Vista
	30	Techniques for 35-45 mph, plus Chicanes, Islands in curved sections
	≤ 25	Techniques for 30-45 mph, plus Vertical Deflection
C3R, C3C	50-55	Project-specific; see FDM 202.4 .
	40-45	Roundabout, Lane Narrowing, Horizontal Deflection, Speed Feedback Signs, RRFB and PHB
	35	Roundabout, Lane Narrowing, Horizontal Deflection, Speed Feedback Signs, Islands in crossings, Road Diet, RRFB and PHB, Terminated Vista
C4	40-45	Roundabout, Lane Narrowing, Horizontal Deflection, Speed Feedback Signs, RRFB and PHB
	35	Techniques for 40-45mph plus On-Street Parking, Street Trees, Short Blocks, Islands at Crossings, Bulb-outs, Terminated Vista, Road Diet
	30	Techniques for 35-45 mph plus Chicanes, Islands in Curve Sections
C5	35	Roundabout, On-street Parking, Street Trees, Short Blocks, Speed Feedback Signs, Islands in Crossings, Road Diet, Bulb-outs, RRFB and HAWK, Terminated Vista
	30	Techniques for 35 mph plus Chicanes, Island in Curve Sections
	25	Techniques for 30-35 mph plus Vertical Deflection
C6	30	Roundabout, On-Street Parking, Horizontal Deflection, Street Trees, Islands in Curve Sections, Road Diet, Bulb-outs, Terminated Vista
	25	Techniques for 30 mph plus vertical deflection

202-Speed Management

Source: FDM Chapter 202

Examples of Speed Management Strategies

- Curb extensions
- Lane narrowing
- Lane repurposing
- Street trees
- Terminated vista
- Horizontal deflection
- Chicanes
- Islands at crossings
- Roundabouts
- Vertical deflection
- Speed tables



Source: FDM Chapter 202

- Raised crosswalks
- Raised intersections
- On-street parking
- Bicycle lanes
- Shared use paths
- Sidewalks

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Examples of Strategies used in District Two



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Complete Street Strategies



Bicycle Lanes



Sharrows

Complete Street Strategies



SR 24/D St in Cedar Key (Levy County)

Marked Crosswalks



SR A1A in St. Augustine (St. Johns County)

Mid-Block Crossings

Complete Street Strategies



SR 100/E Duval St in Lake City (Columbia County)

**Pedestrian Hybrid Beacons
(PHBs)**



SR 109/University Blvd in Jacksonville (Duval County)

**Rectangular Rapid Flashing Beacons
(RRFBs)**

Complete Street Strategies



Sidewalks



Shared Use Paths

Complete Street Strategies



US 41/Main St in High Springs (Alachua County)



SR 211/St Johns Ave in Jacksonville (Duval County)

Curb Extensions (Bulb-Outs)

Street Trees

Complete Street Strategies



US 17 in Crescent City (Putnam County)

Raised Medians



SR A1A in Amelia Island (Nassau County)

Roundabouts

Complete Street Strategies



Speed Tables



Raised Crosswalks

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Examples of District Two Complete Streets Projects



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Complete Streets Examples – Before and After



U.S. 17/Main Street - Jacksonville

Complete Streets Examples – Before and After



S.R. 24/SW Archer Road - Gainesville

Complete Streets Examples – Before and After



S.R. 207 – East Palatka

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