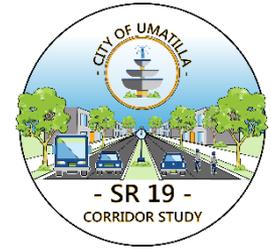


# Central Avenue (SR 19) Corridor Study

FM Number: 439756-1

Public Kick-off Meeting  
April 25, 2017

# Authority



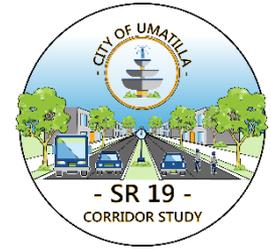
This public meeting is being held in accordance with Chapter 120, Florida Statutes.

This project is being developed in accordance with the Civil Rights Acts of 1964 and 1968. Under Title VI and VIII of the Civil Rights Acts, any person(s) or beneficiary who believes they have been subjected to discrimination because of race, color, religion, sex, age, national origin, disability, or familial status may file a written complaint with:

**FDOT's Equal Opportunity Office**  
**605 Suwannee Street, MS 65**  
**Tallahassee, Florida 32399-0450**  
**Telephone: (850) 414-4747**



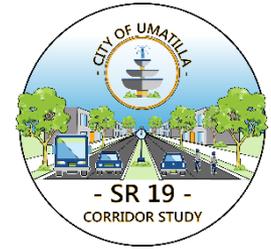
# Meeting Agenda



1. Introductions
2. Project Overview
3. Existing Conditions
4. Future Conditions
5. Planned Improvements
6. Purpose and Need
7. Toolbox of Improvements
8. Next Steps



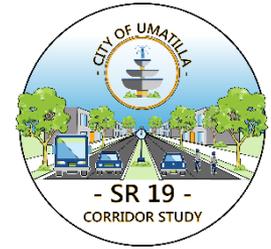
# Project Overview



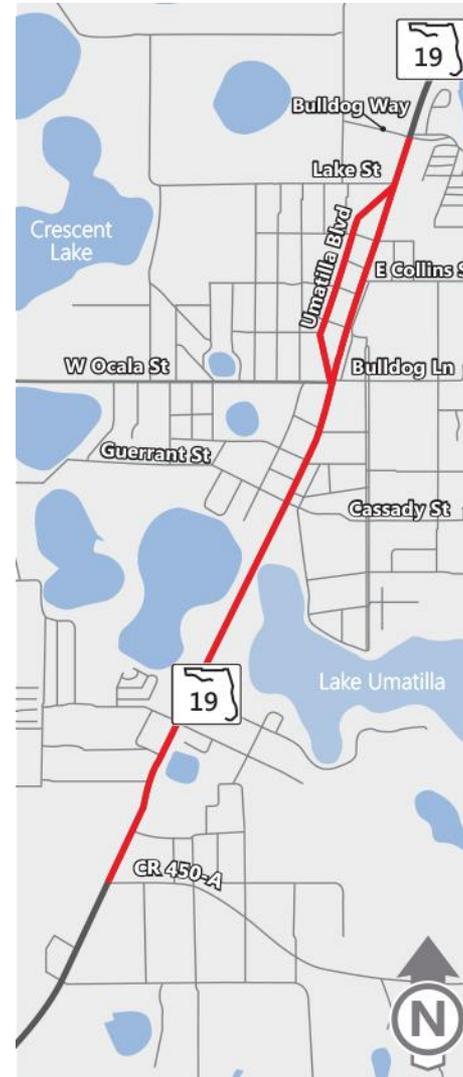
- The purpose of this project is to provide an enhanced multimodal transportation system which promotes the creation of a healthier community; incorporates complete streets design components; improves access to employment, retail, and institutional uses along the corridor; accommodates for future growth and economic development; and provides safe and convenient access to users of all ages and physical abilities.



# Study Area

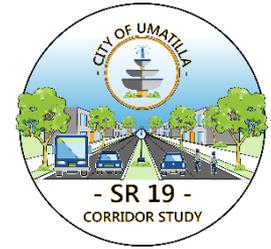


- SR 19 from CR 450-A to Bulldog Way/ Olde Mill Stream RV Resort
  - 2.02 miles
  - Urban and rural cross sections
  - Primary north-south route between US 441 and SR 40
- Also includes Umatilla Blvd.
  - 0.56 miles
  - From W. Ocala St. to south of Lake St.

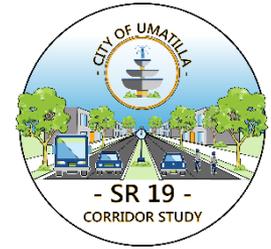


# Project Visioning Team

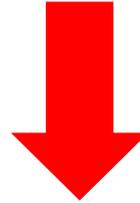
- PVT Responsibilities
  - Four (4) meetings during key project milestones
  - Identify stakeholders that need to be engaged
  - Provide input on the planning and concept development process
  - Recommend corridor alternatives to be advanced for further study
  - Share local knowledge and history



# Project Schedule



**We are Here**



*Planning Phase – Define the Problem*

*Planning Phase – Define the Purpose and Need*

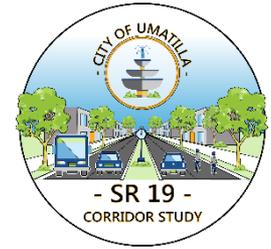
*Planning Phase – Define and Select Alternative(s)*

October 2016 – January 2017

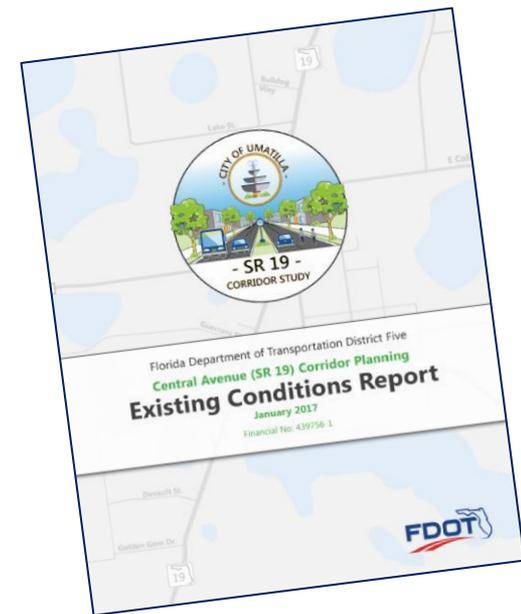
February 2017 – April 2017

May 2017 – October 2017

# Planning Phase – Define the Problem



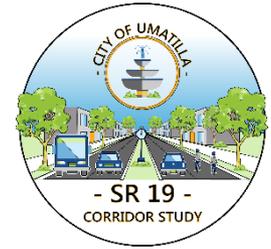
- Public Involvement Plan
- Project Visioning Team Meeting #1
- Existing Conditions Report
  - Land Use
  - Demographics
  - Traffic Operations
  - Safety
  - Bike/Ped Network
  - Transit
  - Environmental Screening



- *Existing Conditions Report* available at:

[http://www.cflroads.com/project/439756-1/SR\\_19\\_Umatilla](http://www.cflroads.com/project/439756-1/SR_19_Umatilla)

# Traffic Operations

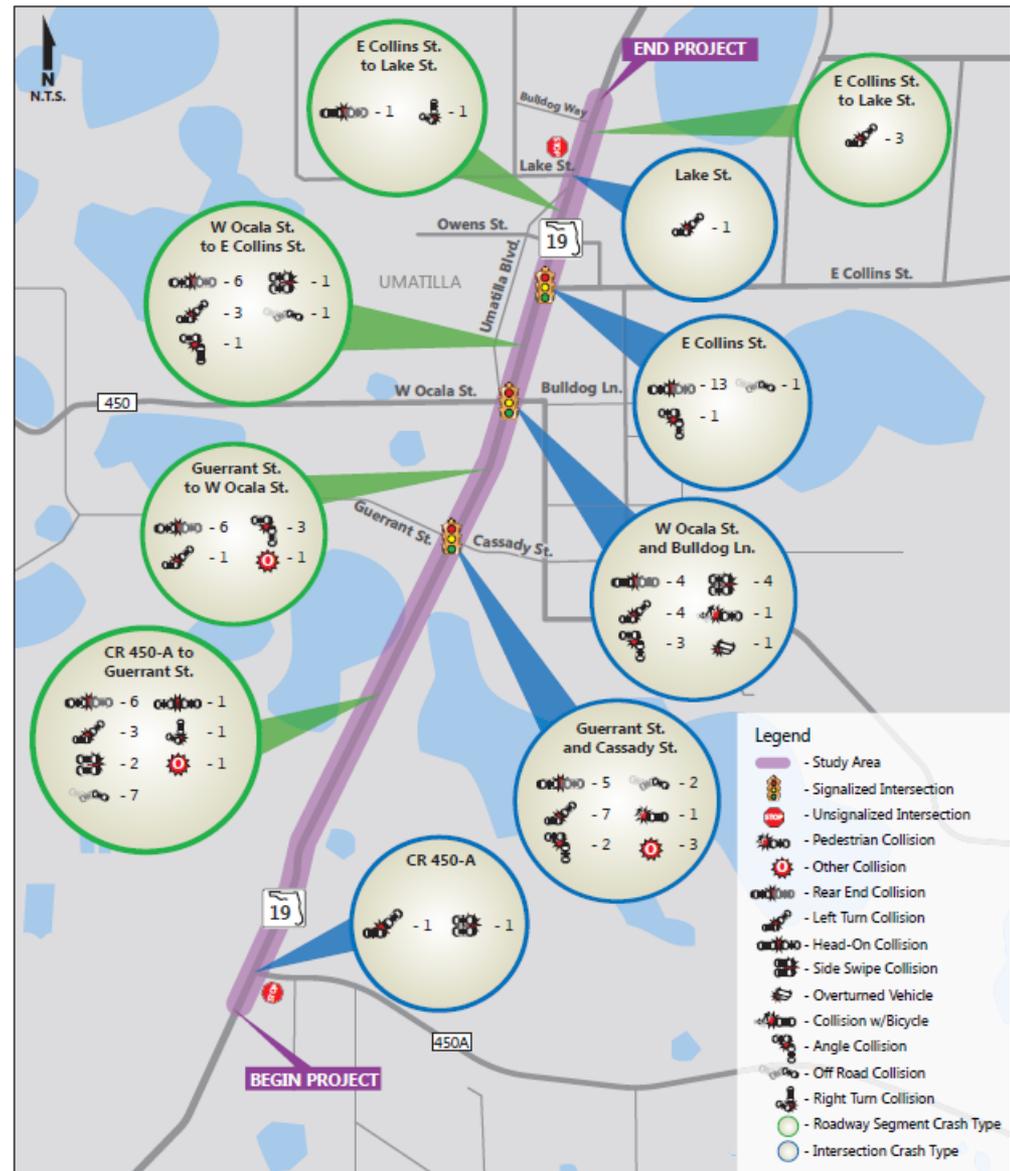


- 95<sup>th</sup> Percentile calculated queue lengths on SR 19 at Bulldog Ln/W Ocala St



# Safety

- Five years of crash data analyzed (2012-2016)
  - 124 total crashes
  - High Crash Intersections:
    - SR 19 at Guerrant St/Cassady St
    - SR 19 at E Collins St
  - All segments have average crash rates below statewide average

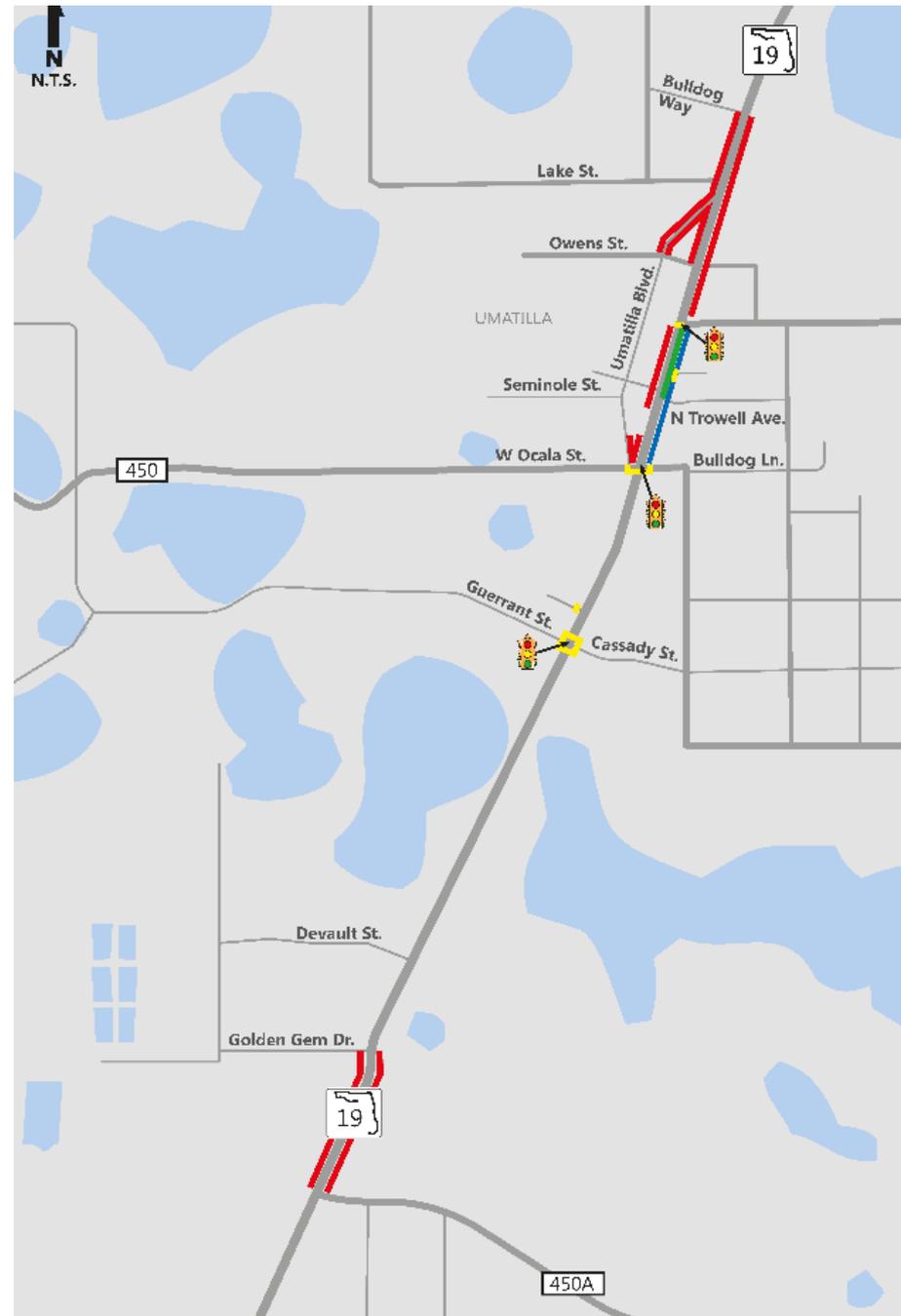


# Sidewalk Gaps

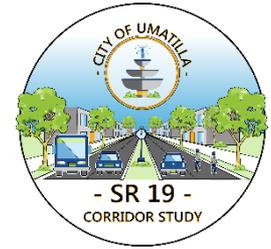


## Legend

-  - Signalized Intersection
-  - Bike Lane
-  - Sidewalk Gaps
-  - Marked Crosswalks
-  - Multi-Use Path



# Transit



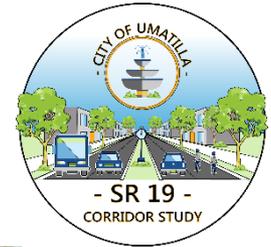
- One route in Study Area which runs along SR 19
  - Route 4: Altoona to Zellwood
- Minimal amenities at most stops
- Accessibility challenges in some locations



Route	Span of Service	Service Frequency
4	Monday-Friday 7:15 AM to 7:15 PM	120 minutes



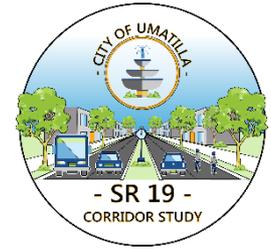
# Healthy Community Design



- Identifies physical improvements and policies that can result in better health outcomes for the communities served by SR 19
- Integrates public health, transportation, and community planning to recognize how the built environment affects the physical, social, and mental health of communities
- Transportation is an important part of the built environment and significantly influences physical activity and well-being, safety, and the ability of community members to access destinations that are essential to a healthy lifestyle



# Community Health Health Indicators

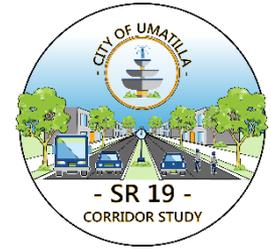


Indicator	Umatilla	Lake County	Florida
<b>Asthma Hospitalizations</b> (Rate per 10,000 Population)	14.11	12.88	15.30
<b>Asthma Emergency Room Visits</b> (Rate per 10,000 Population)	24.34	33.42	48.11
<b>Heart Attack Hospitalizations</b> (Rate per 10,000 Population)	22.40	32.18	21.62
<b>Heart Disease related Deaths</b> (Rate per 100,000 Population)	124.7	141.5	155.0
<b>Stroke related Deaths</b> (Rate per 100,000 Population)	<b>35.7</b>	31.7	31.6
<b>Diabetes related Deaths</b> (Rate per 100,000 Population)	<b>25.1</b>	19.4	20.0



Sources: Florida Department of Health, Community Environmental Health Profile Reports, 5-Year Crude Rates

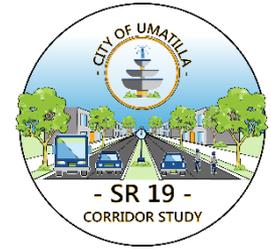
# Community Health Access



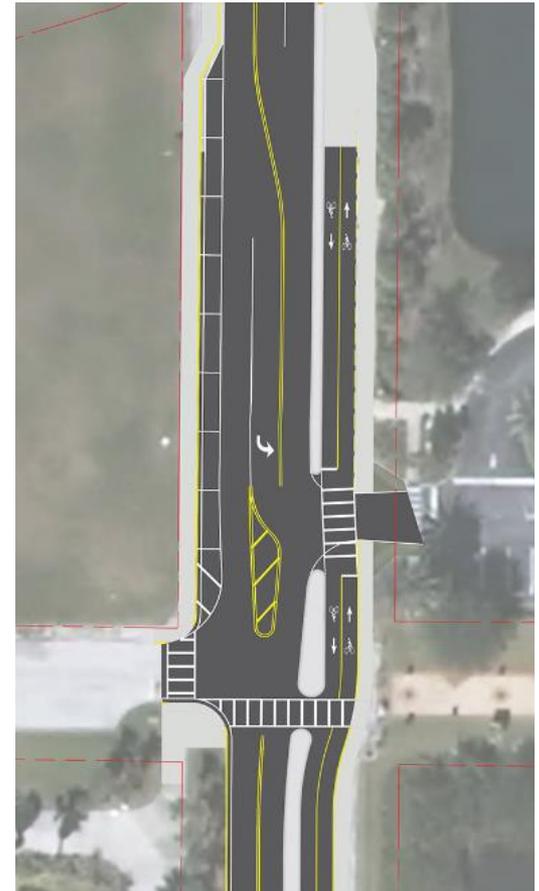
Percent population within a ten-minute walk (1/2 mile) of a(n):	Umatilla	Lake County	Florida
Healthy food source	<b>6.00%</b>	13.21%	31.81%
Fast food restaurant	<b>5.99%</b>	14.45%	33.54%
Park	34.73%	31.39%	44.83%
Off-street trail system	9.93%	4.45%	10.64%

Sources: Florida Department of Health, Community Environmental Health Profile Reports, 5-Year Crude Rates

# Planning Phase – Define the Purpose and Need

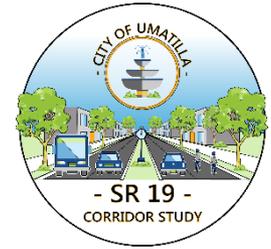


- Needs Assessment
- **Project Visioning Team Meeting #2**
  - Highlight existing and future conditions
  - Identify potential alternatives to consider
- **Public Kick-Off Workshop #1 (Today)**
  - Highlight existing and future conditions
  - Identify potential alternatives to consider
  - Samples of similar projects or planning techniques
- Deliverables:
  - Future Conditions Summary,
  - Purpose and Need Statement, Evaluation Criteria, and Health Assessment Memorandum



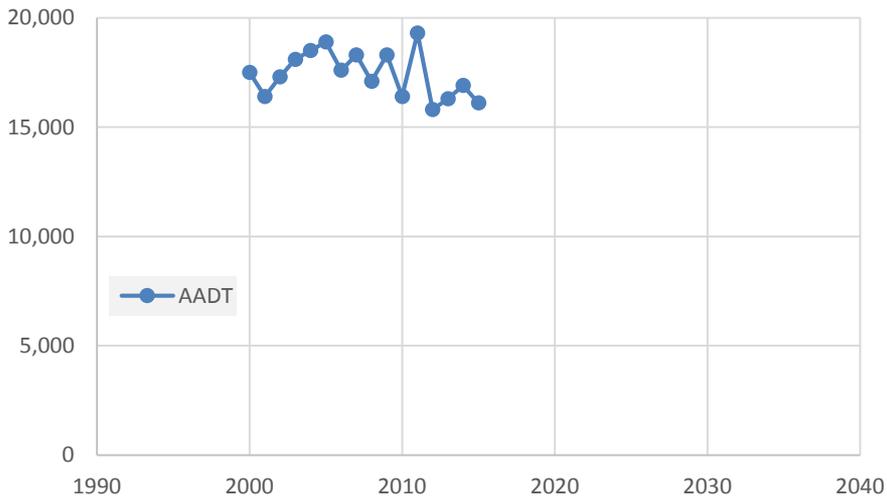
Example Cycle Track  
developed for  
another project

# Future Conditions

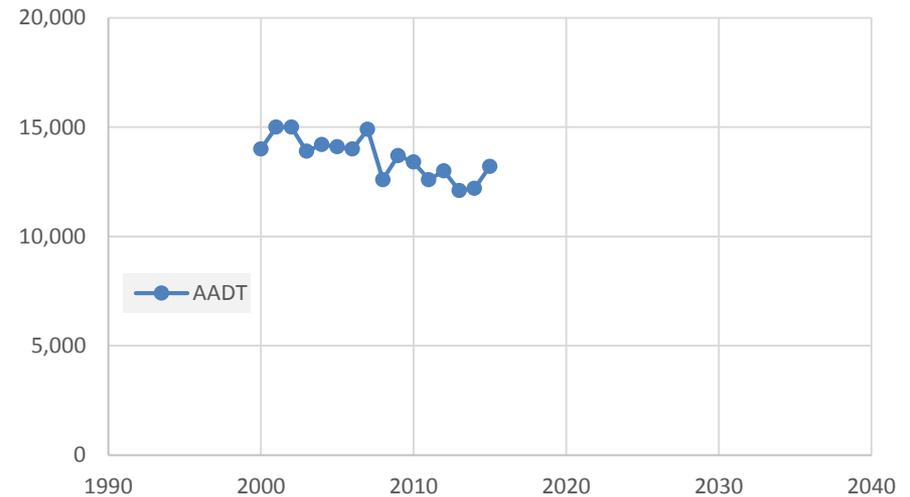


- Historical traffic data shows no future growth in traffic volumes

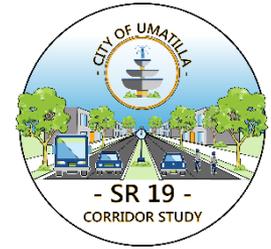
SR 19  
CR 450-A to W Ocala St.



SR 19  
W Ocala St. to Bulldog Way



# Future Conditions

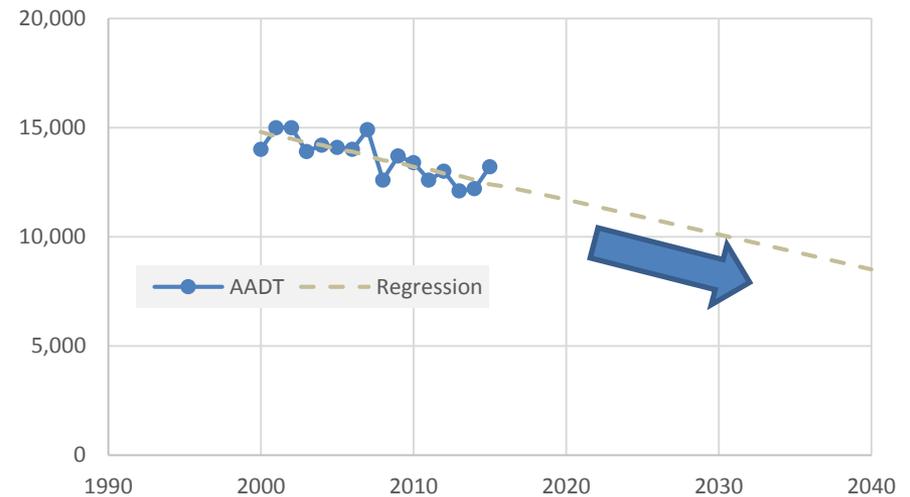


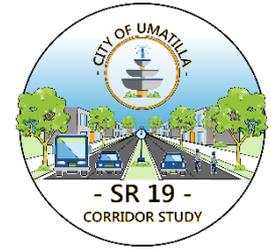
- Historical traffic data shows no future growth in traffic volumes

SR 19  
CR 450-A to W Ocala St.



SR 19  
W Ocala St. to Bulldog Way

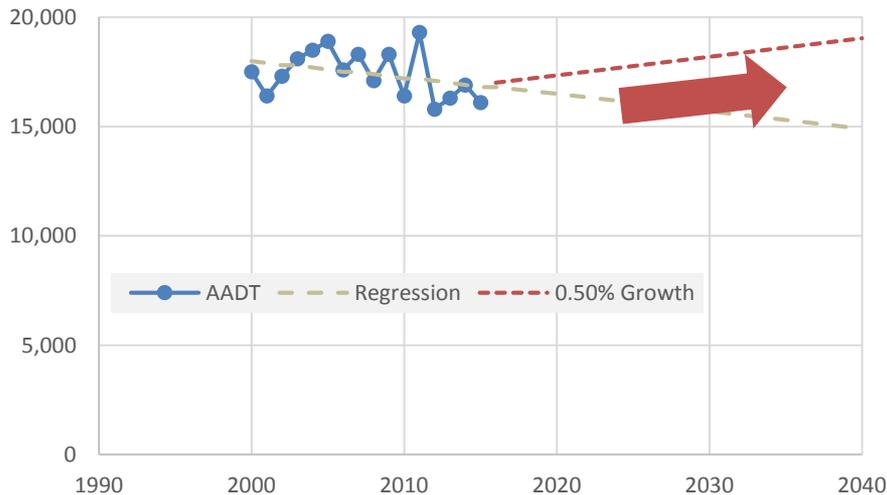




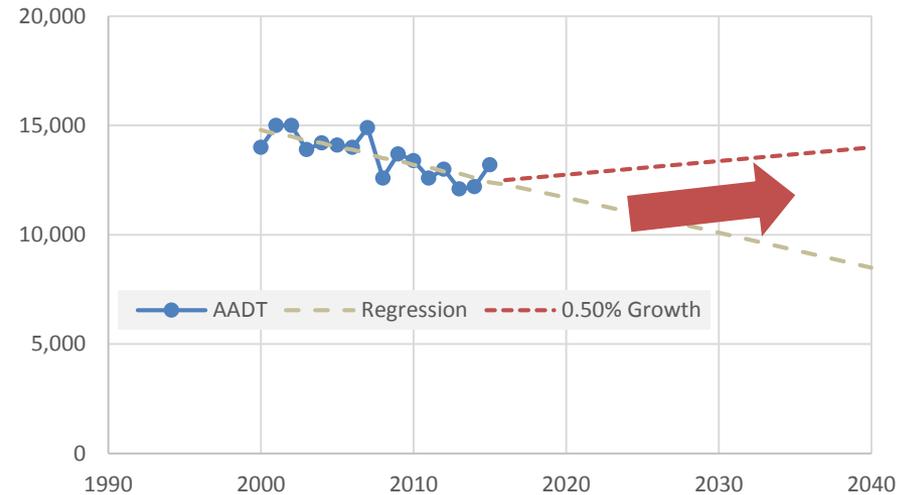
# Future Conditions

- Historical traffic data shows no future growth in traffic volumes
- Assumed 0.5% growth for conservative estimate

SR 19  
CR 450-A to W Ocala St.



SR 19  
W Ocala St. to Bulldog Way



# Traffic Operations

XX/XX: Existing/Year 2040

- SR 19 at Bulldog Ln/W Ocala St
  - No change in operations from existing to year 2040 conditions

## Avg. Delay per Vehicle:

- AM Peak: 65.3/65.4 sec
- Mid-Day: 64.7/64.4 sec
- PM Peak: 62.9/69.0 sec

## Avg. Delay per Vehicle:

- AM Peak: 13.6/21.3 sec
- Mid-Day: 23.4/18.3 sec
- PM Peak: 25.8/30.6 sec

## Avg. Delay per Vehicle:

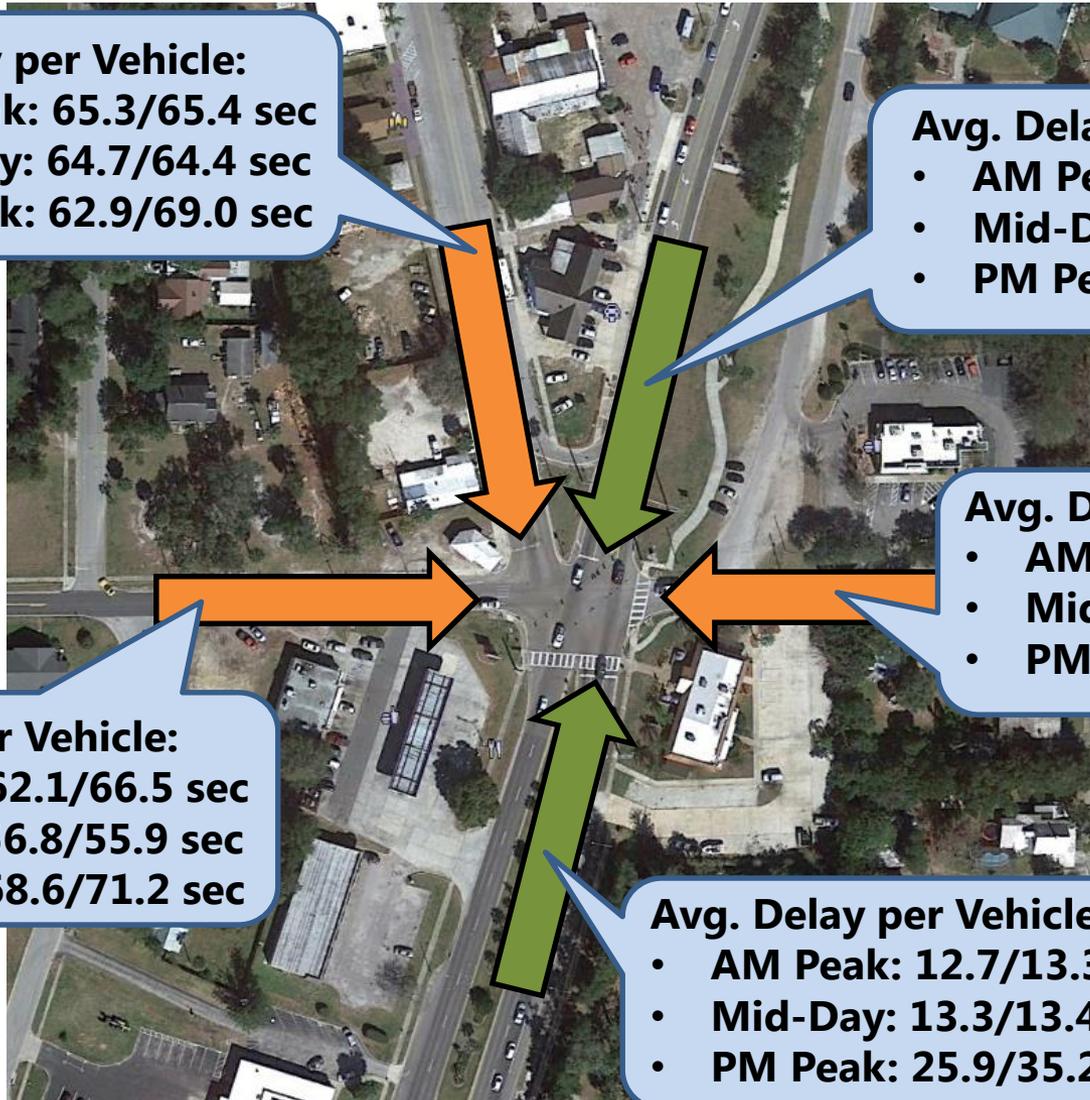
- AM Peak: 53.1/49.9 sec
- Mid-Day: 66.8/67.2 sec
- PM Peak: 56.4/52.9 sec

## Avg. Delay per Vehicle:

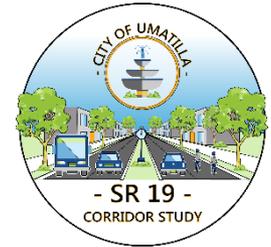
- AM Peak: 62.1/66.5 sec
- Mid-Day: 56.8/55.9 sec
- PM Peak: 68.6/71.2 sec

## Avg. Delay per Vehicle:

- AM Peak: 12.7/13.3 sec
- Mid-Day: 13.3/13.4 sec
- PM Peak: 25.9/35.2 sec



# Community Health



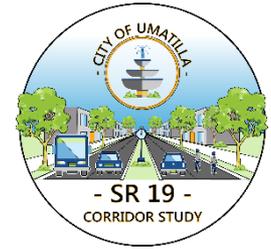
- Data from Florida Hospital Waterman 2016 Community Health Needs Assessment examined
- 2016 CHNA identified the most pressing and feasible issues to tackle and included:

- Asthma
- Diabetes
- Heart Disease
- Poor Access to Food/Nutrition
- Obesity

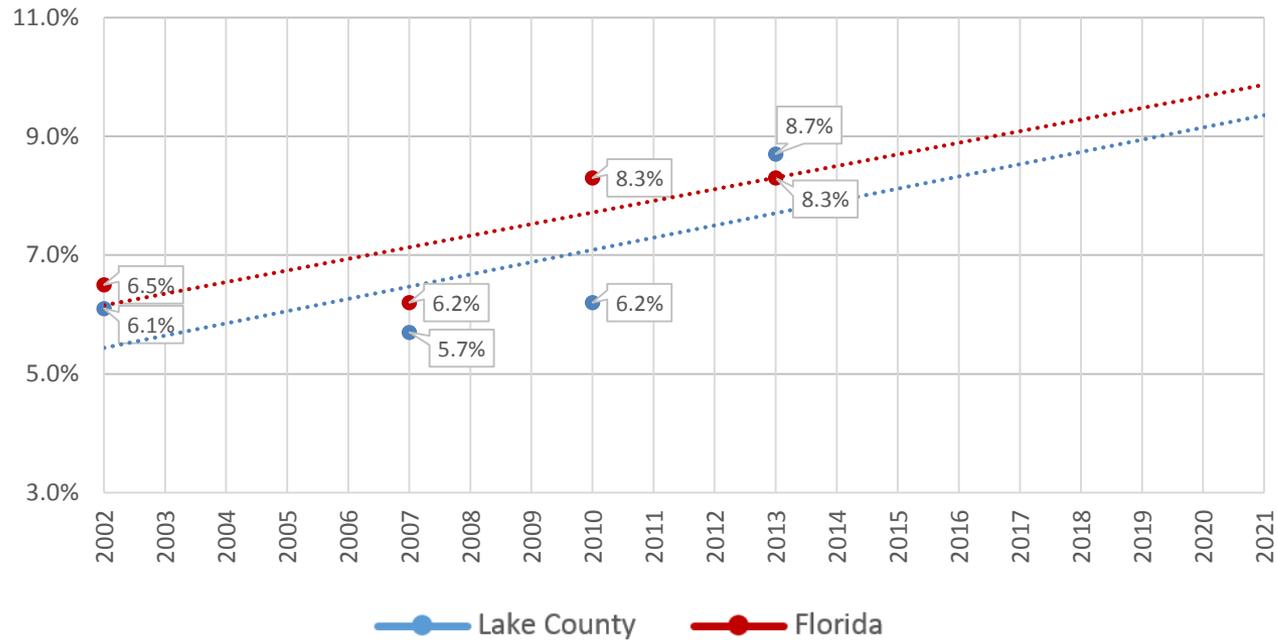


- 2016 CHNA identified hypertension as a top 5 secondary diagnosis

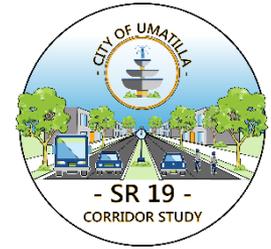
# Community Health



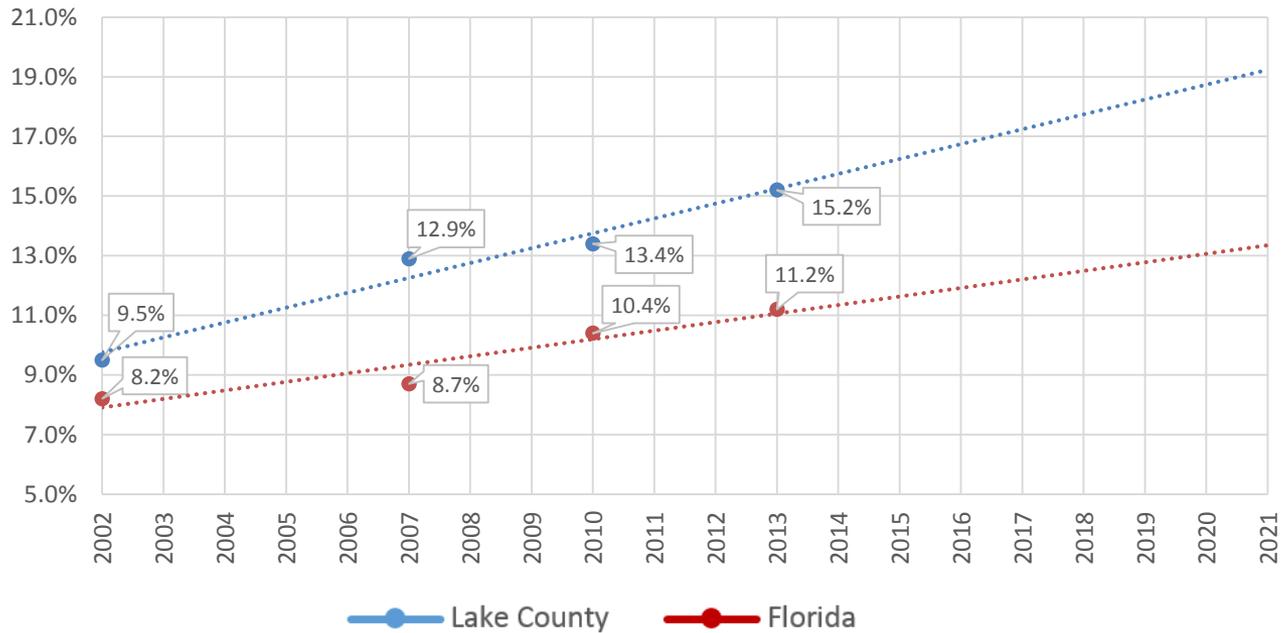
## Percent of Adult Population with Asthma



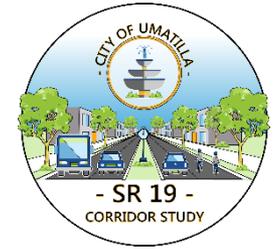
# Community Health



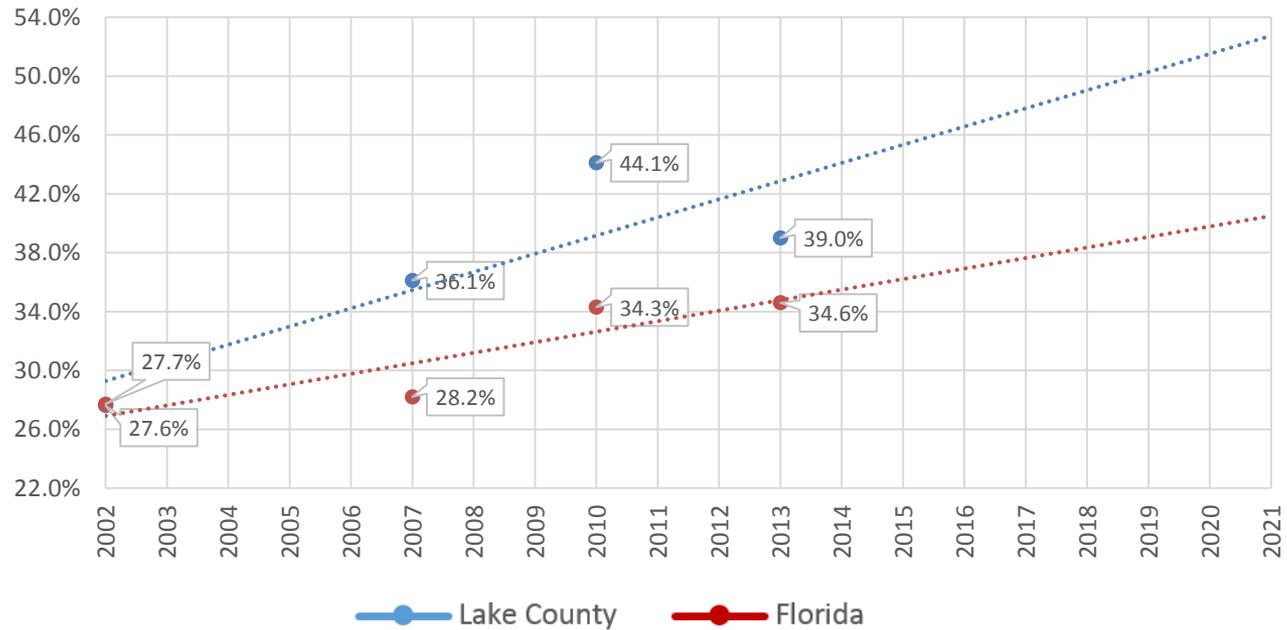
## Percent of Adult Population with Diabetes



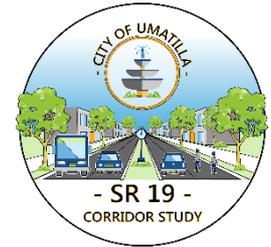
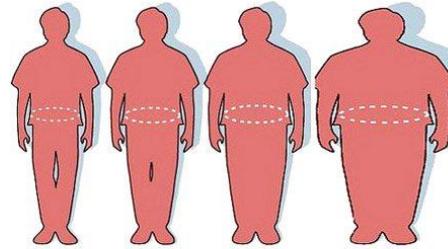
# Community Health



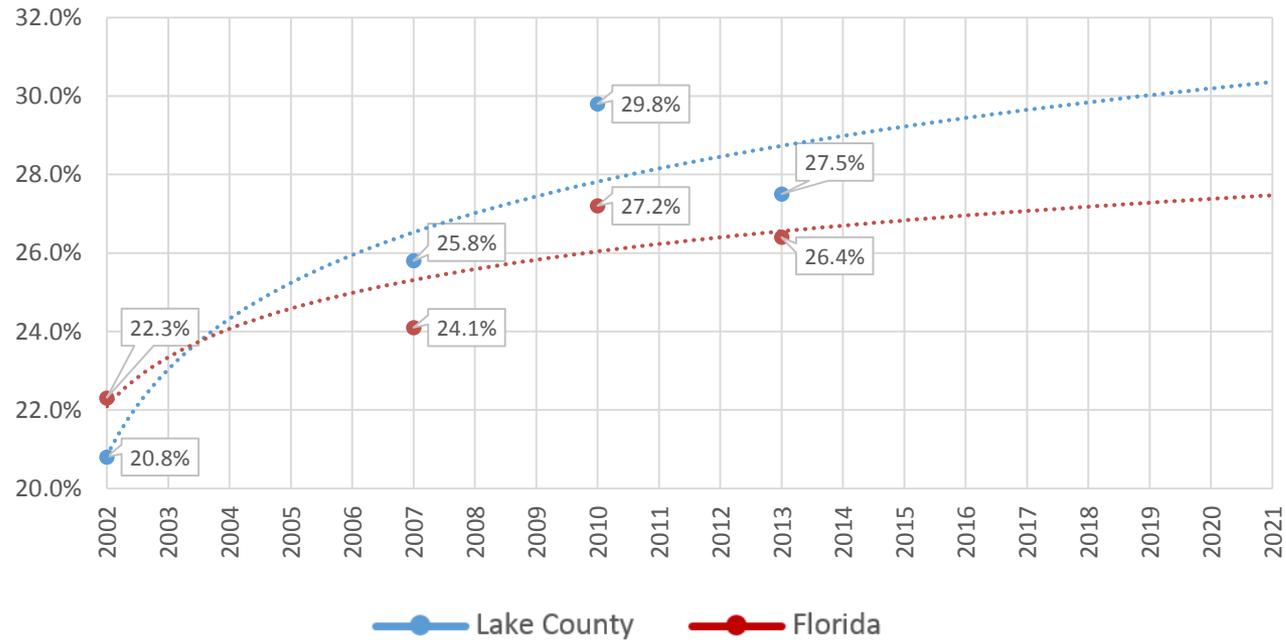
## Percent of Adult Population with Hypertension



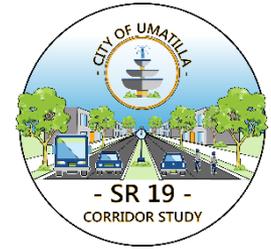
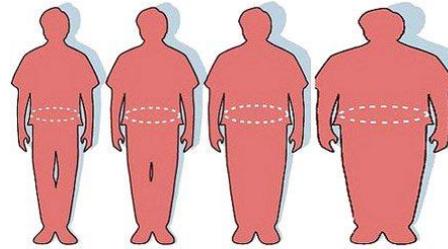
# Community Health



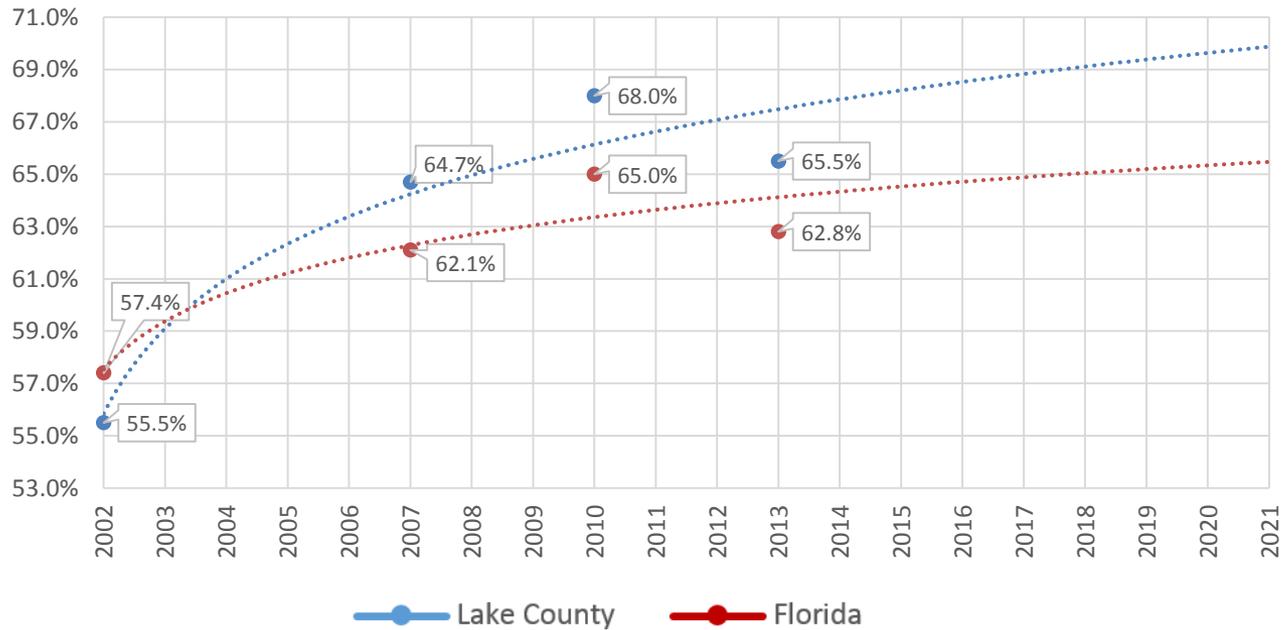
## Percent of Adult Population who are Obese



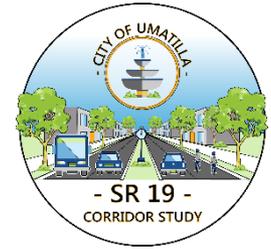
# Community Health



## Percent of Adult Population who are Obese or Overweight



# Planned Improvements



- LakeXpress Transit Development Plan
  - Year 2020: Increased frequency on Route 4 (2 hours to 1 hour)

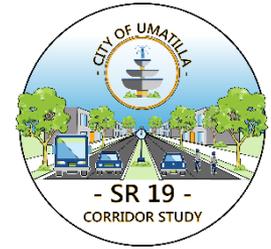


LAKE COUNTY TRANSIT DIVISION  
P.O. Box 7800, Tavares, Florida 32778  
2440 U.S. Highway 441/27, Fruitland Park, Florida 34731  
Telephone: 352.323.5733; Facsimile: 352.323.5755  
[www.ridelakexpress.com](http://www.ridelakexpress.com)

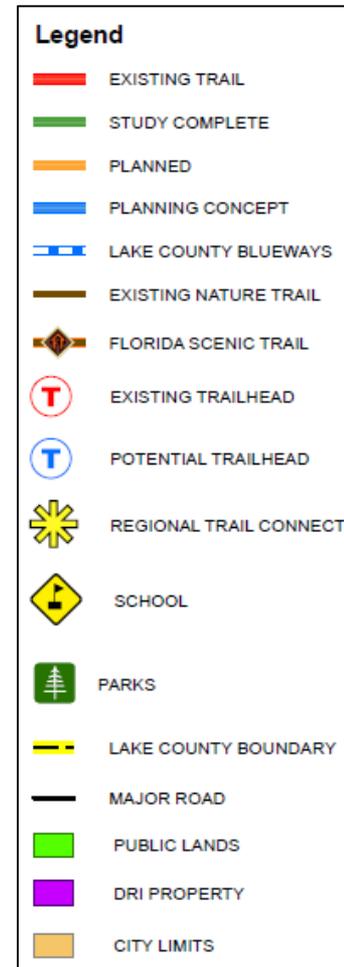


2016 TRANSIT DEVELOPMENT PLAN ANNUAL UPDATE

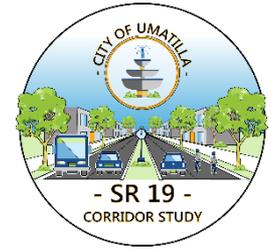
# Planned Improvements



- Lake County Trails Master Plan
  - North Lake Trail-Phase 2 along SR 19 (exact alignment TBD)



# Identified Needs



An enhanced multimodal system is needed to create a healthy community that provides improved accommodations for walking, bicycling, and using transit along the corridor. Furthermore, there is a need to improve safety and operations along the corridor. These needs are based on the following observations:



Lack of bicycle facilities



Sidewalk gaps



Bus stops with minimal amenities



Documented safety concerns



Driveways and median openings that do not meet current standards

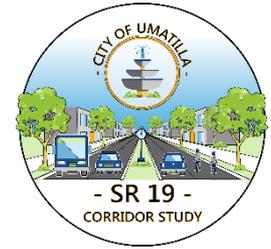


High level of delay for side streets



Trends indicating an increase in chronic diseases amongst the adult population

# Toolbox of Improvements

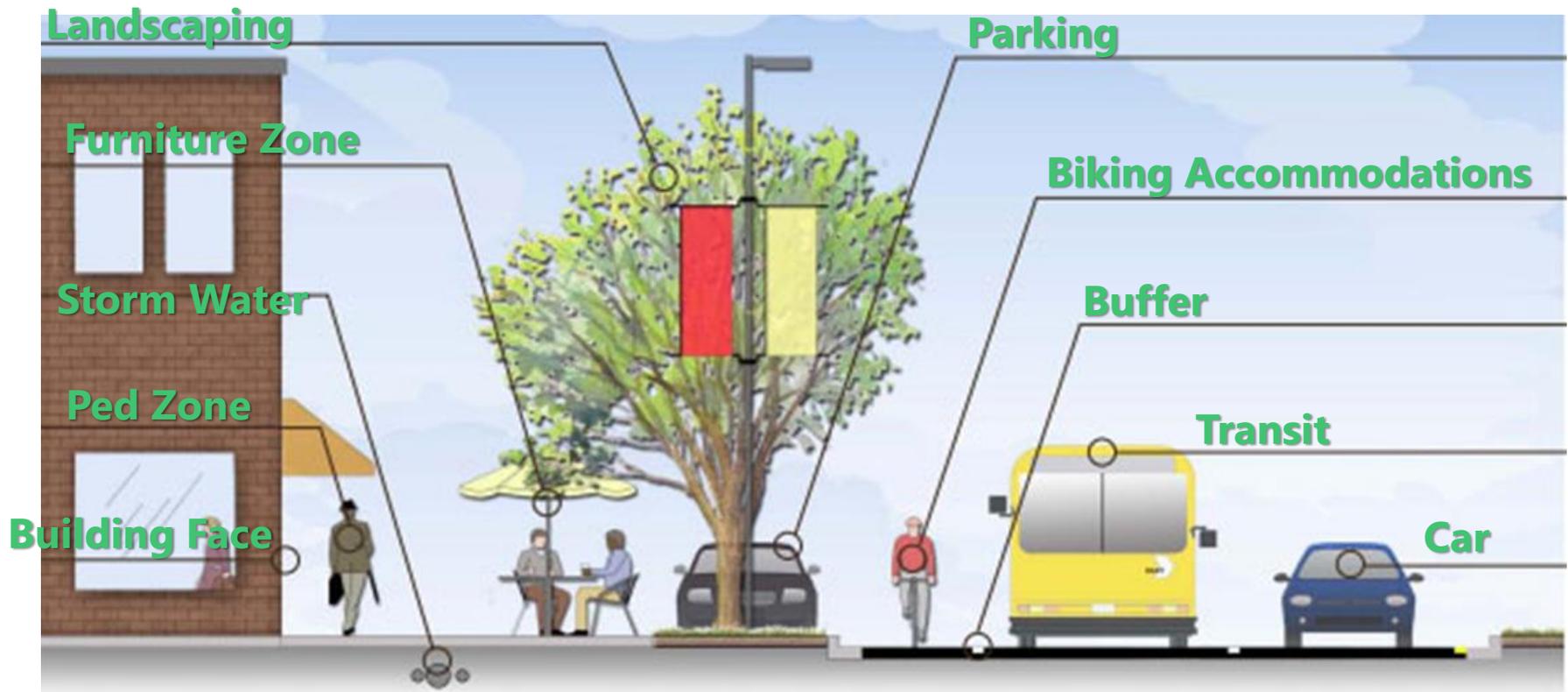


- Complete Streets (Road Diet)
- Bicycle Improvements
- Roundabout
- One-Way Pair Conversion
- Access Management
- Safety-Rear End Crashes
- Safety-Speeding
- Pedestrian Improvements

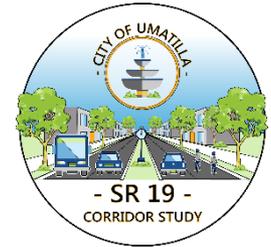


# Complete Streets Elements

- Complete Streets = Accommodations for all users



# Road Diet

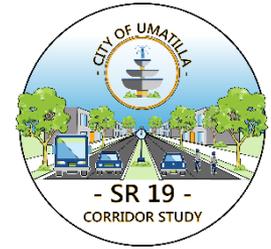


- Road Diet = A common method to convert street into a “complete street”
  - Reallocates street space to provide separate bike/ped facilities

## Rightsizing Edgewater Drive in Orlando, Florida



# Case Study with Medians: Tallahassee, FL



- N. Franklin Boulevard
- Completed August 2012

## Before



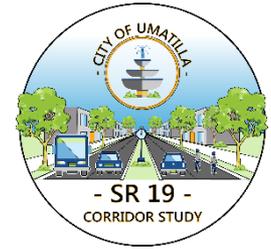
Photo courtesy of: Google Streetview (June 2011)

## After



Photo courtesy of: Google Streetview (July 2015)

# Bicycle Improvements



- Cycle Track



- Buffered Bike Lanes



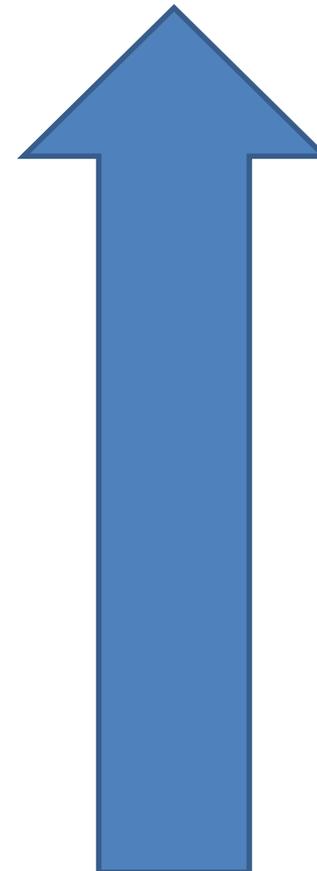
- Bike Lanes



- "Sharrow" Markings

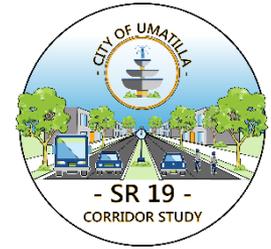


**Increasing  
Level of  
Separation  
from Traffic**



# Roundabout

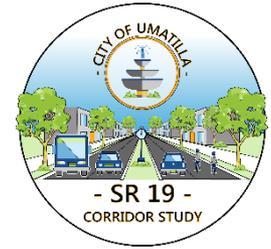
- Vehicles yield on entry
- **Reduces delay** with continuous movement
- **Improves safety** (eliminates T-Bone crashes) that occur at signalized intersections



Roundabout in Tavares

Photos Courtesy of: Google Streetview and Google Earth

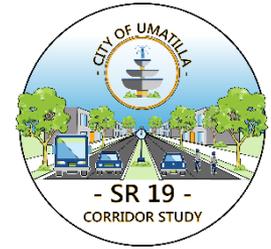
# Roundabout Examples-DeLand



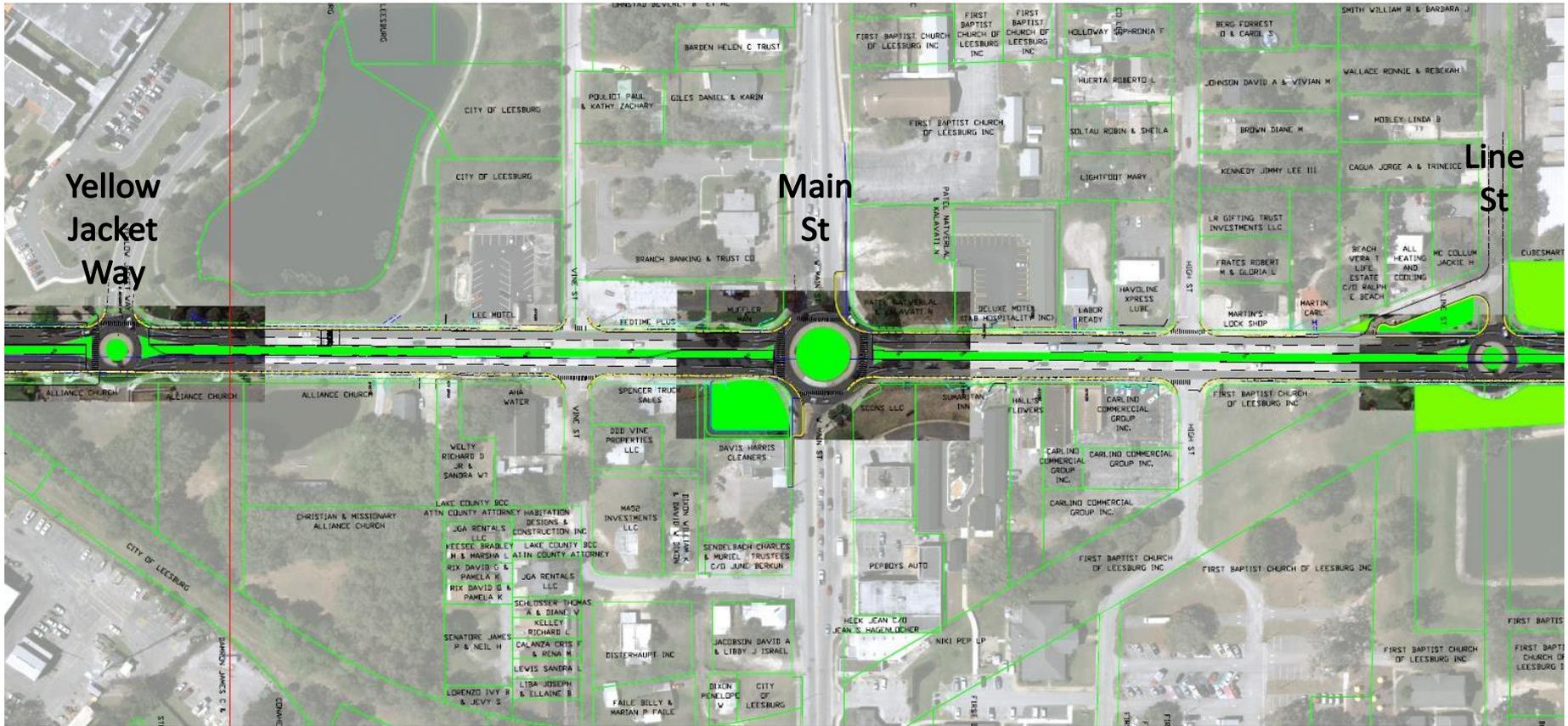
- SR 44 and Grand Avenue



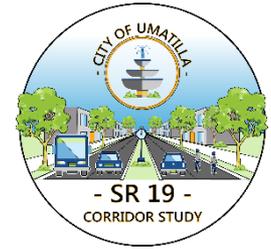
# Roundabout Examples-Leesburg



- US 27 (Conceptual)



# Roundabout Examples-Atlanta



- Five Legged Intersection Conversion at Emory University

**Before**



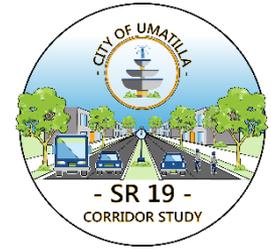
**After**



Photos Courtesy of: Google Earth and Google Streetview



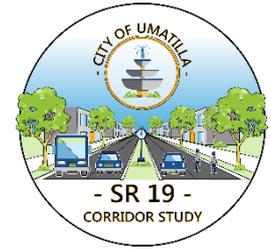
# One-Way Pair Conversion



- Generally used for constrained facilities that have parallel roads nearby
- May need to consider extension of E. Collins St.



# Access Management



- FDOT Standards:
  - Access Class 4
    - 440' between driveways
  
  - Access Class 3
    - 440' between driveways
    - 2640' (0.5 miles) between full median openings

*“Driveways should be located and designed to minimize impacts on traffic while providing safe entry and exit from the development served.” – FDOT Driveway Information Guide (2008)*



Access Class 4

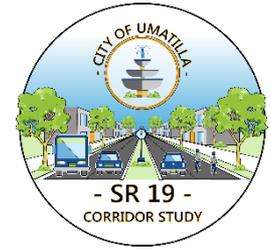


Access Class 3



# Access Management





# Safety-Rear End Crashes

- Possible treatments in response to rear end crashes near signalized intersections



Photo courtesy of: ELTEC

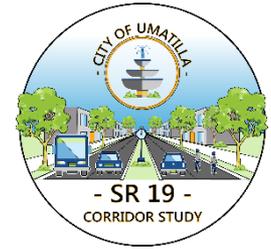


Photo courtesy of: RoadTrafficSigns.com



Photo courtesy of: Google Streetview

# Safety-Speeding



## Brick intersections



Photo courtesy of: FHWA

## Colored/textured pavement at crosswalks



Photo courtesy of: FHWA

## Landscaped medians/ Urban cross section

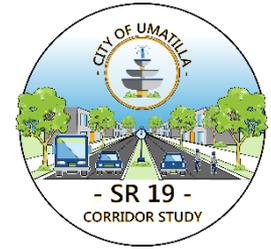


## Speed feedback devices



Photo courtesy of: FHWA

# Pedestrian Improvements



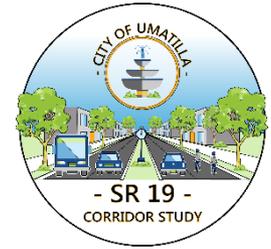
- Median refuge islands enable pedestrians to perform a two stage crossing



Photo courtesy of: Google Streetview



# Pedestrian Improvements

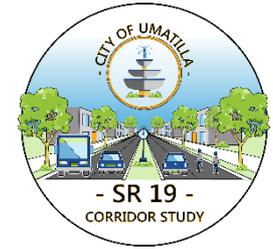


- Potential to add sidewalk to connect to ball park

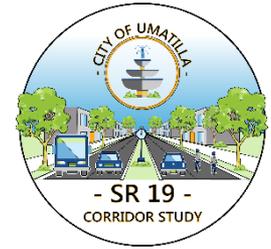


# Community Input

- Are there any other corridor needs?
- What projects are needed?



# Next Steps



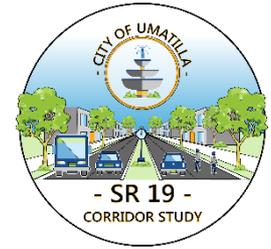
- Summarize feedback from this workshop
- Respond to written comments and questions
- Finalize *Purpose and Need Statement*
- Finalize *Future Conditions Summary*







# Questions/Comments?



Contact Us!

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Project information will be posted on:

[http://www.cflroads.com/project/439756-1/SR\\_19\\_Umatilla](http://www.cflroads.com/project/439756-1/SR_19_Umatilla)