



13<sup>th</sup> Street

University Avenue

City of  
**Gainesville**

Corridor Study

University of  
Florida

Downtown  
Gainesville

# Study Overview

13<sup>th</sup> Street University Avenue

Corridor Study



Analyze and develop **concepts**



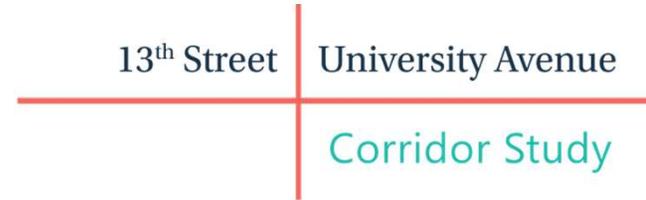
Recommend **interim & ultimate use of the street & right of way** to **improve safety & prioritize people**



**Partnership** between City of Gainesville, University of Florida and Florida Department of Transportation



# Scope of Work & Steps



## We Are Planning A Complete Street

Complete Streets Reallocate Street Space To Be Designed For People And Used By Everyone

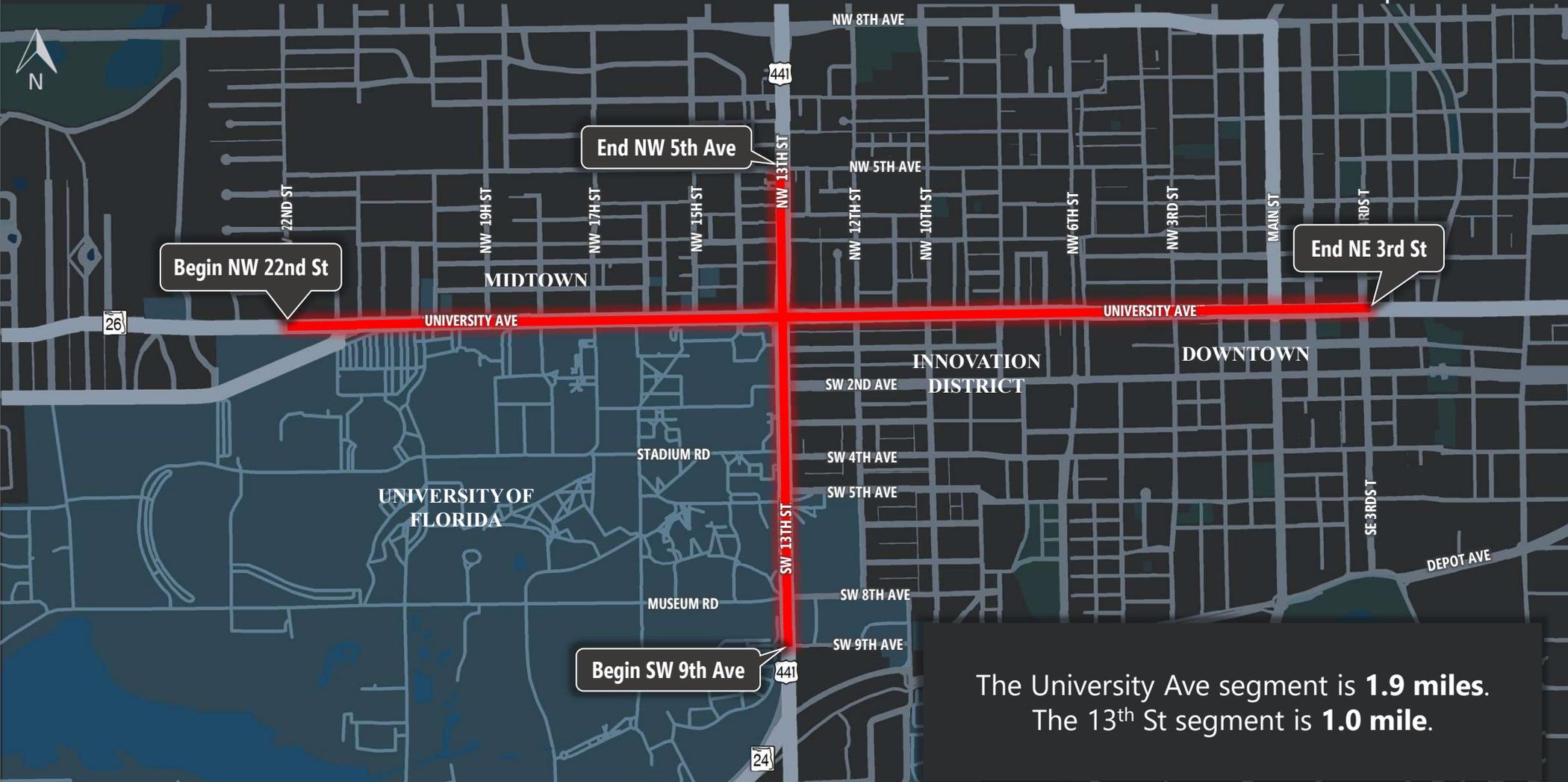
Including Vehicles, Transit, Pedestrians, & Cyclists Of All Ages & Abilities

- 1 Identify potential design solutions based on corridor safety needs and context**
- 2 Conduct an alternatives assessment to compare corridor solutions**
- 3 Draw concept plans and recommend the ultimate use of the street**



# Study Limits

13<sup>th</sup> Street | University Avenue  
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The University Ave segment is **1.9 miles**.  
The 13<sup>th</sup> St segment is **1.0 mile**.

# 1 | Existing Conditions

# Bicycle and Pedestrian Counts

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4 Highest Hours of the Day

**2,415** Pedestrians  
**366** Bicyclists

4 Highest Hours of the Day

**180** Pedestrians

4 Highest Hours of the Day

**3,171** Pedestrians  
**309** Bicyclists

4 Highest Hours of the Day

**184** Pedestrians  
**160** Bicyclists

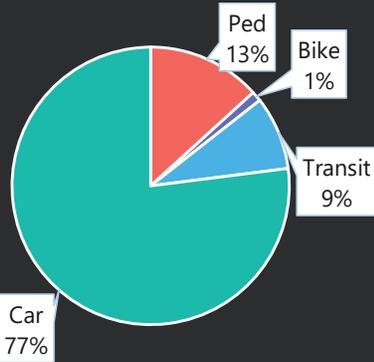
 Future Development



Pedestrian and bicycle movement is expected to increase with the new developments.

# Overlap of Modes at 5 PM

## University Ave @ 13<sup>th</sup> St Intersection 5 PM – 6 PM



Car  
77%

**851 people**



**75 people**



**~22 buses**



**4,950 vehicles**

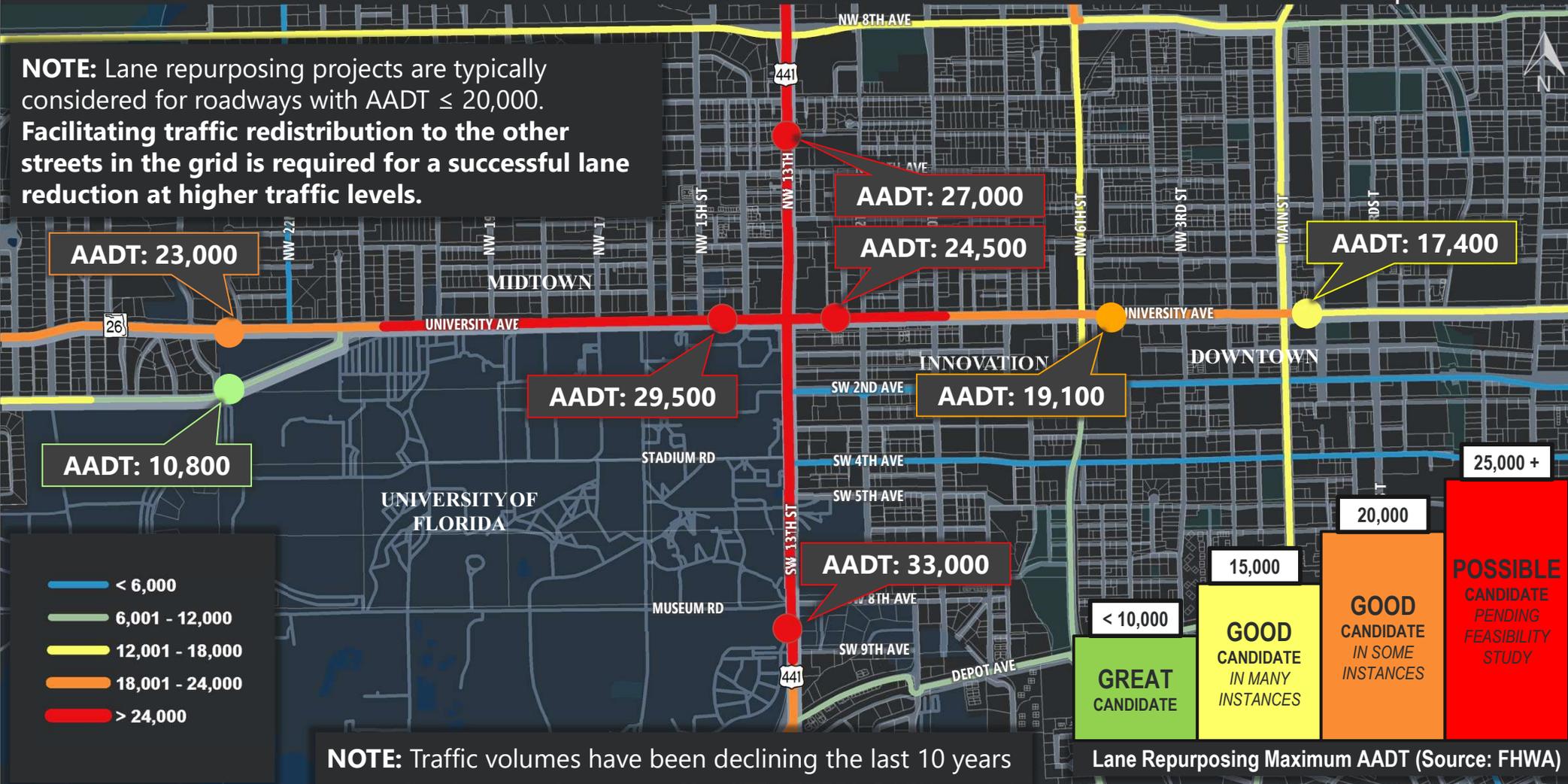
While vehicle capacity is constrained at the intersection, vehicles still dominate the intersection creating challenges for other modes.



# Daily Traffic Map – AADT (Annual Average Daily Traffic)

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**NOTE:** Lane repurposing projects are typically considered for roadways with AADT ≤ 20,000. Facilitating traffic redistribution to the other streets in the grid is required for a successful lane reduction at higher traffic levels.



**NOTE:** Traffic volumes have been declining the last 10 years

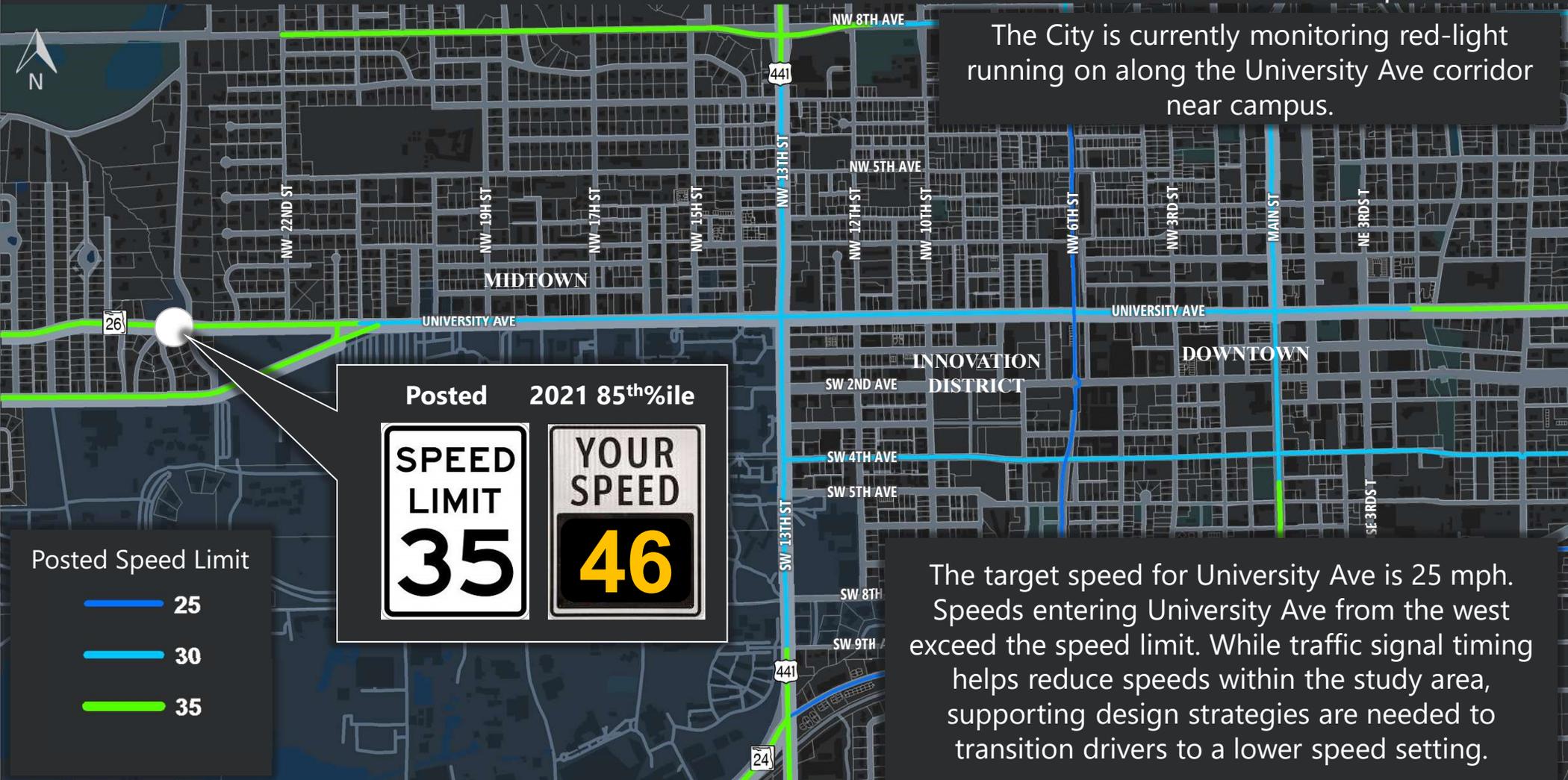
Lane Repurposing Maximum AADT (Source: FHWA)

# Speed Limits

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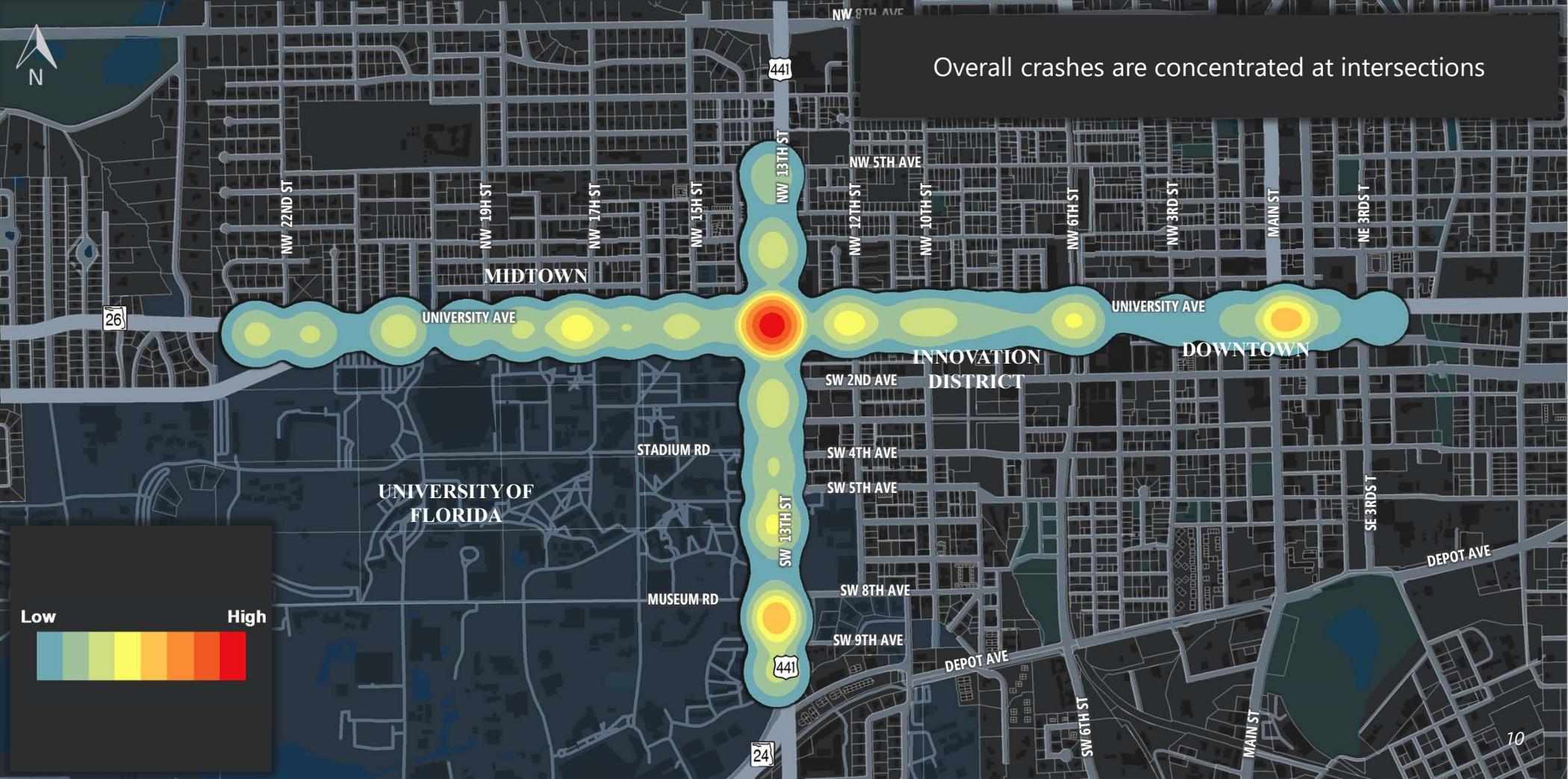
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The City is currently monitoring red-light running on along the University Ave corridor near campus.



# Overall Crashes (2015 – 2020)

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# Pedestrian Crashes (2015 – 2020)

with 2021 Fatalities

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2020 Hit and Run Fatality at 10:49PM.  
Student struck by driver while  
crossing University Ave.

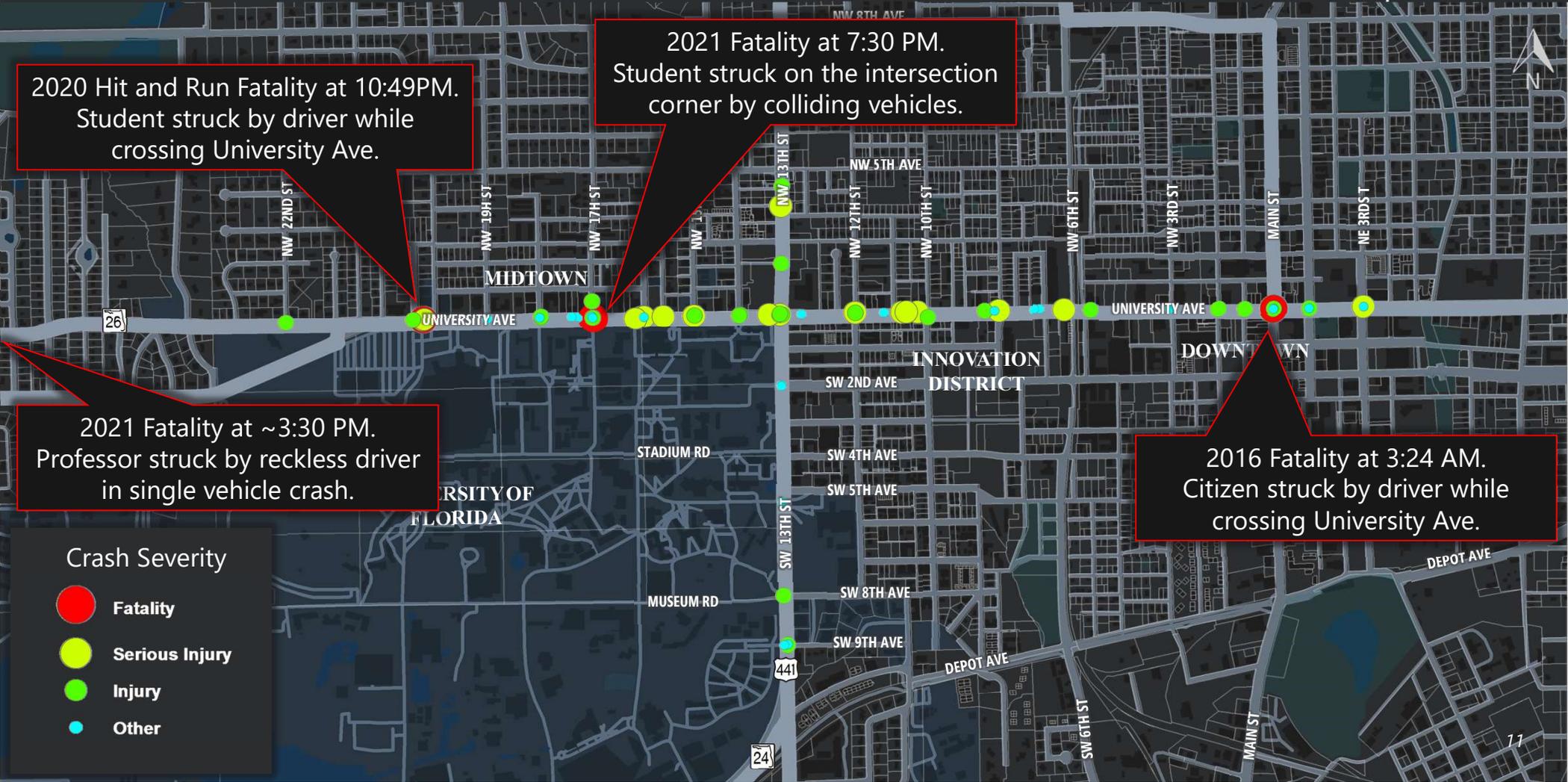
2021 Fatality at 7:30 PM.  
Student struck on the intersection  
corner by colliding vehicles.

2021 Fatality at ~3:30 PM.  
Professor struck by reckless driver  
in single vehicle crash.

2016 Fatality at 3:24 AM.  
Citizen struck by driver while  
crossing University Ave.

### Crash Severity

- Fatality
- Serious Injury
- Injury
- Other



# Pedestrian/Bicyclist Crash Analysis

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## SPEED

**20**  
MPH

## CONE OF VISION



## STATISTICAL OUTCOME OF A PEDESTRIAN STRUCK BY A VEHICLE:



**9 OUT OF 10  
PEDESTRIANS SURVIVE**

**30**  
MPH



**5 OUT OF 10  
PEDESTRIANS SURVIVE**

**40**  
MPH



**1 OUT OF 10  
PEDESTRIANS SURVIVE**

*Source: UNC Highway Safety Research Center*

## 2 | Potential Design Strategies & Similar Studies

# Expected Crash Reduction

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## RAISED CROSSWALK (SPEED TABLES)



## PEDESTRIAN REFUGE ISLAND



## RAPID RECTANGULAR FLASHING BEACON



**47%**

EXPECTED PEDESTRIAN  
CRASH REDUCTION

## PEDESTRIAN HYBRID BEACON



## SINGLE LANE ROUNDABOUT



**78%**  
EXPECTED  
REDUCTION IN  
SEVERE CRASHES

## RAISED MEDIANS



**46%**  
EXPECTED PEDESTRIAN  
CRASH REDUCTION

# Example Corridor

Hillsborough St in Raleigh, North Carolina

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**BEFORE**



**AFTER**



Source of Images: City of Raleigh

**Improvements:** Roundabouts, median additions, landscaping, on-street parking on both sides of roadway, wide sidewalks,

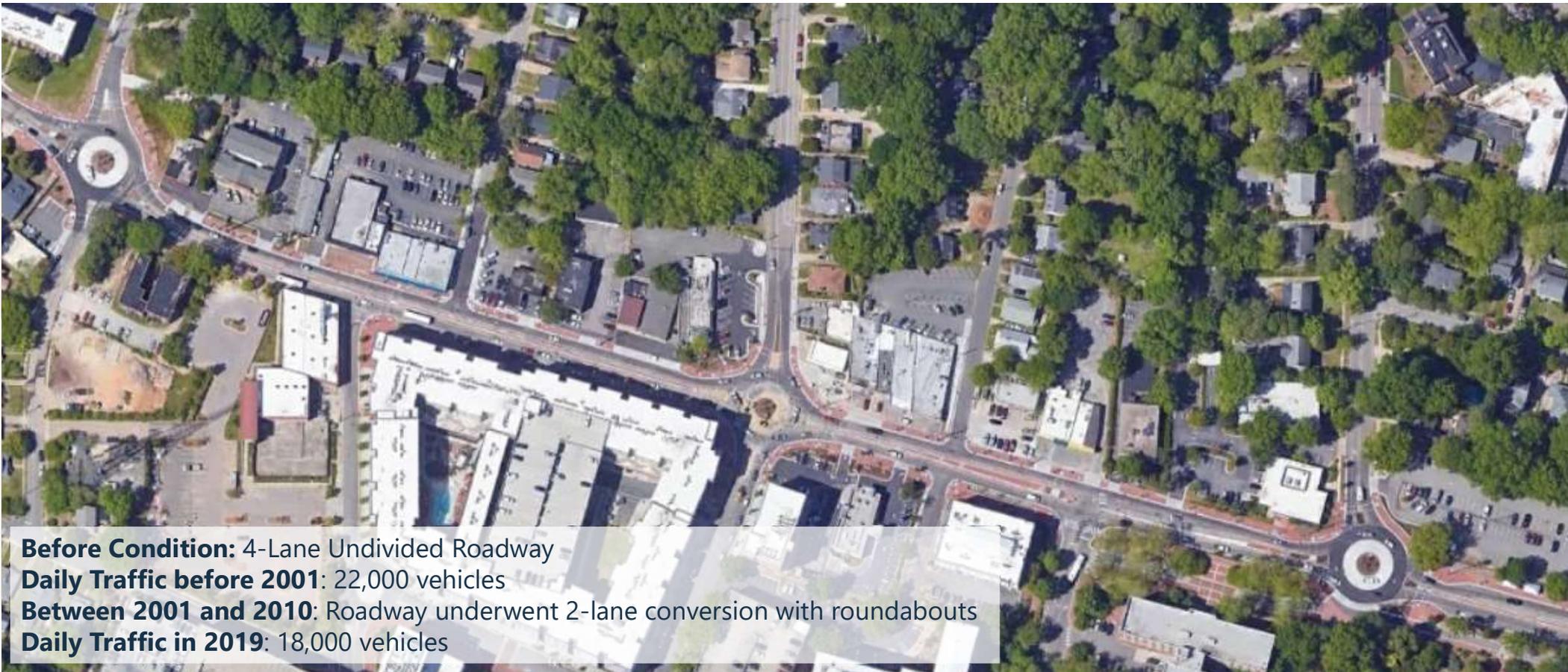
# Example Corridor

Hillsborough St in Raleigh, North Carolina

13<sup>th</sup> Street

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**Before Condition:** 4-Lane Undivided Roadway  
**Daily Traffic before 2001:** 22,000 vehicles  
**Between 2001 and 2010:** Roadway underwent 2-lane conversion with roundabouts  
**Daily Traffic in 2019:** 18,000 vehicles

# Example Corridor

Mill Avenue in Tempe, Arizona

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## PEDESTRIAN-FIRST DESIGN



## COLLEGE TOWN NIGHT LIFE



### SPEED



BEFORE



AFTER

### AVERAGE DAILY TRAFFIC

**19,000** **16,000**  
BEFORE AFTER



After

Photo: Google



Before

Photo: City of Tempe

**Mill Avenue serves as the interface between Downtown Tempe and nearby Arizona State University.**

- Two lanes of traffic were replaced with on street parallel parking.
- Bike lanes were widened and sidewalks redesigned.

Source: Rethinking Streets Book

# Example Corridor

Dr Martin Luther King Jr Street in St. Pete, Florida

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## BEFORE – 5-lane roadway



Daily Traffic in 2018: 14,100 to 18,500 vehicles



## AFTER – 3-lane roadway with buffered bike lanes & pedestrian crossings



Daily Traffic in 2019: 14,100 to 18,500 vehicles



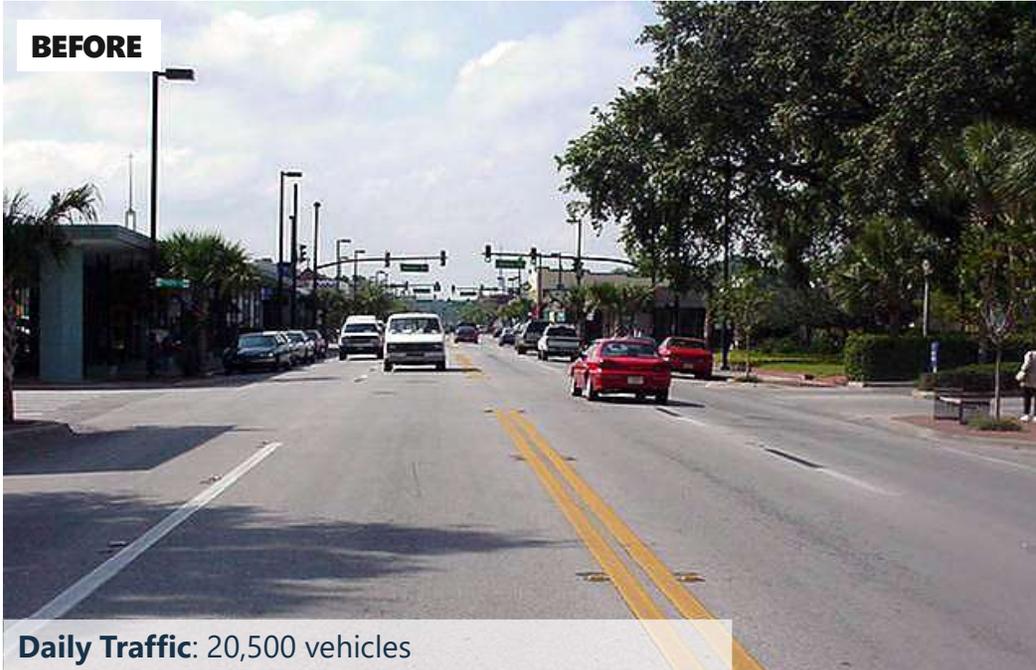
# Example Corridor

Edgewater Drive in Orlando, Florida

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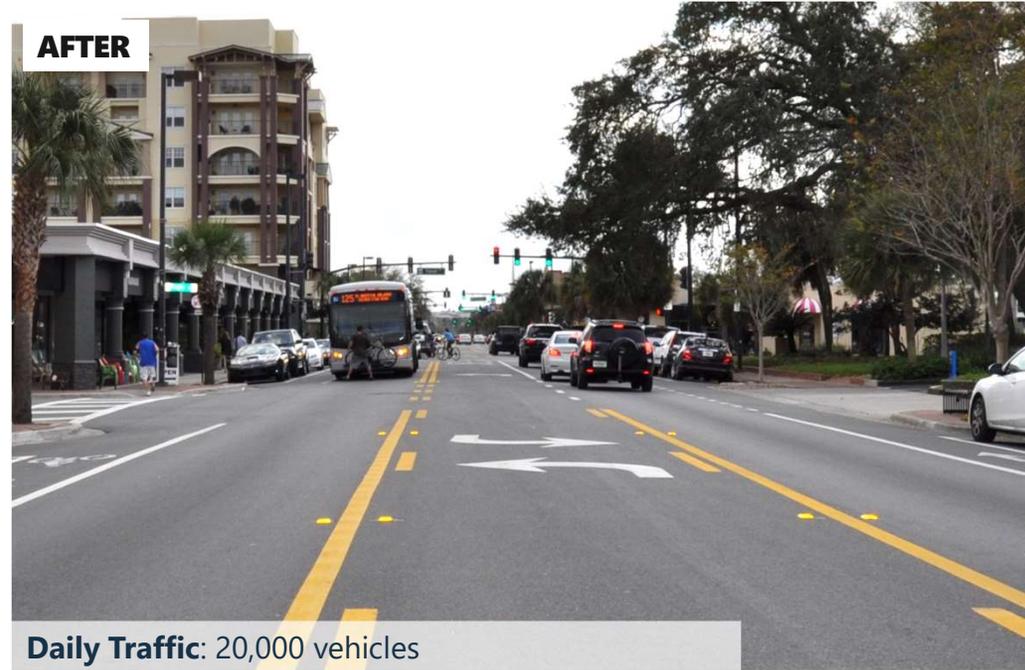
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**BEFORE**



Daily Traffic: 20,500 vehicles

**AFTER**



Daily Traffic: 20,000 vehicles

**44-45%**

REDUCTION IN CRASH AND INJURY RATE



# Example Corridors

in Fort Lauderdale, Florida

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## 13<sup>th</sup> STREET



**Before Condition:** 4-Lane Undivided Roadway  
**Daily Traffic in 2016:** 17,400 vehicles  
**Between 2017 and 2018:** 2-lane implementation  
**Daily Traffic in 2019:** 13,300 vehicles

## WILTON DRIVE



**Before Condition:** 4-Lane Undivided Roadway  
**Daily Traffic in 2017:** 13,400 vehicles  
**In 2018:** 2-lane implementation  
**Daily Traffic in 2019:** 14,700 vehicles

# Example Corridor

A1A in North Fort Lauderdale, Florida

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**2-Lane Roadway with Bike Lanes and Parking**



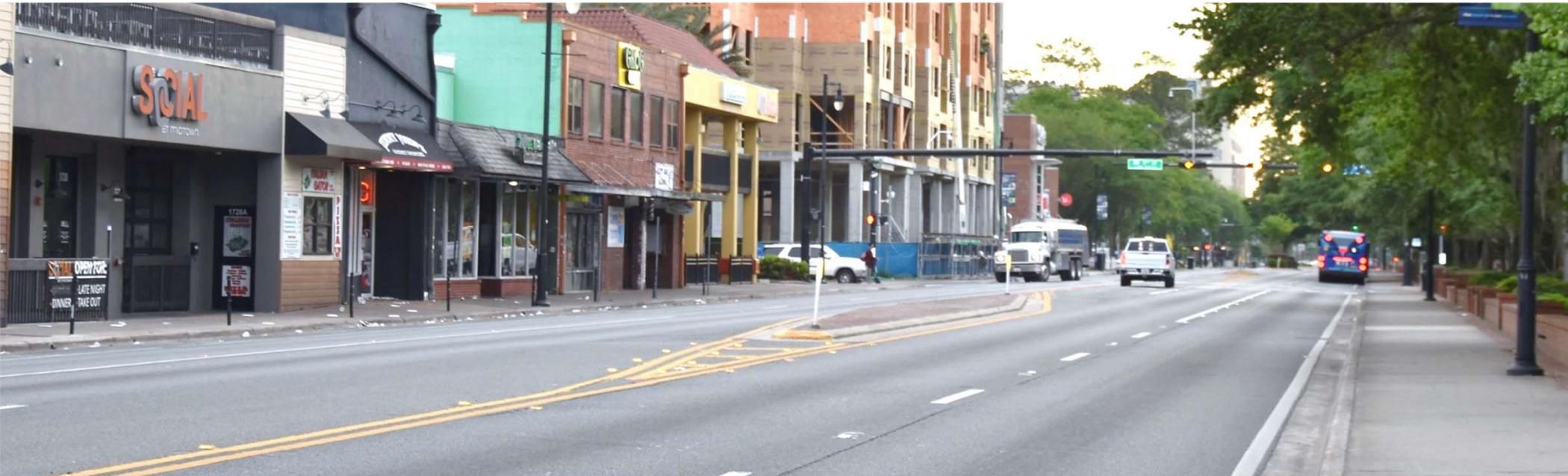
**Before Condition:** 4-Lane Undivided Roadway  
**Daily Traffic between 2004 and 2012:** 27,500 to 32,500 vehicles  
**Between 2013 and Today:** Roadway segments underwent 2-lane conversion  
**Daily Traffic in 2019:** 18,800 vehicles

**30  
MPH**

# Project Goals

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## Safety and Speed Management

Promote safety, reduce speeds, and prioritize vulnerable users

## Mobility and Access

Directness, travel times, and convenience

## Placemaking and Community Development

Use street space for people

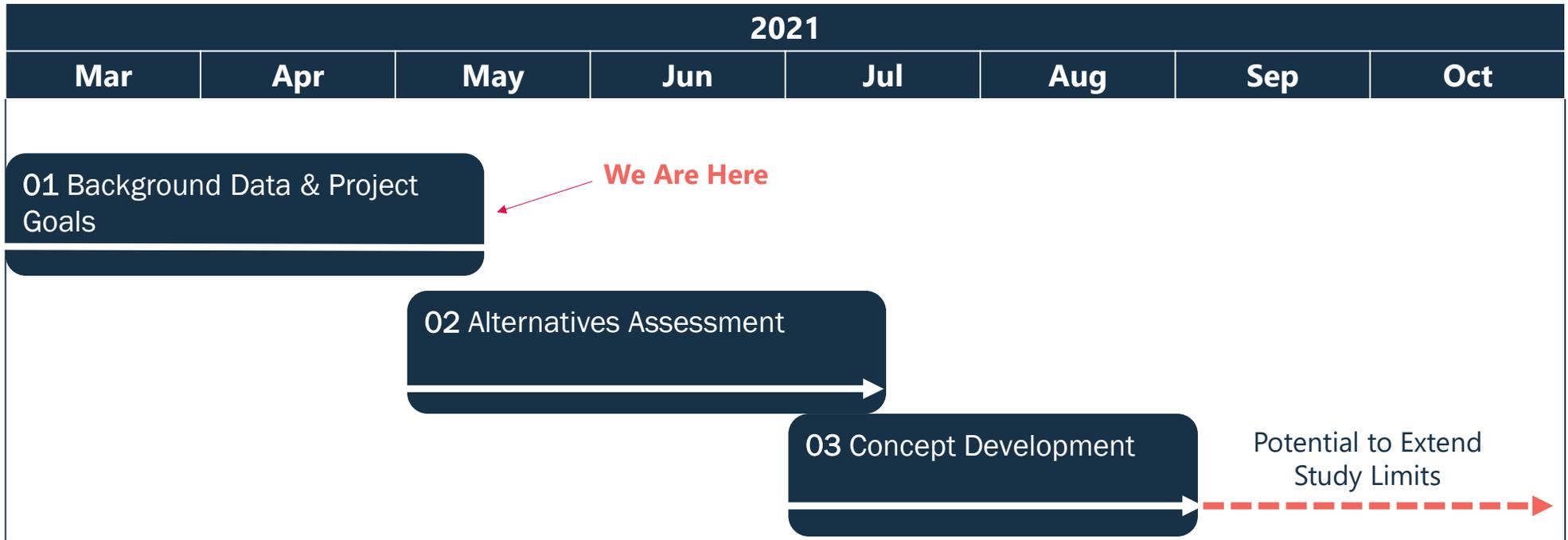
## Cost and Ease of Implementation

Rapid cost-effective changes

# Study Schedule

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## Deliverables

- 01 – Presentation for Background Data & Potential Design Strategies
- 02 – Alternatives Assessment Documentation
- 03 – Final Concept Plans and Visualizations