

34th Street Safety Improvements

Transportation and Stormwater Services
Department

Wednesday, Nov 9, 2016, Public Meeting



Introduction



Meeting Format

- Presentation
- Question & Answer Session
- Display Boards
- Handouts
- Sign in and Comment Sheet



Public Involvement

- Provided two design concepts at the public meeting held on May 29, 2014.
- We moved forward the roundabout concept design based on the response of the meeting participants.
- As we had committed, we are back to provide you with an update with the design and project status.

Public Meeting

Proposed Safety Improvements

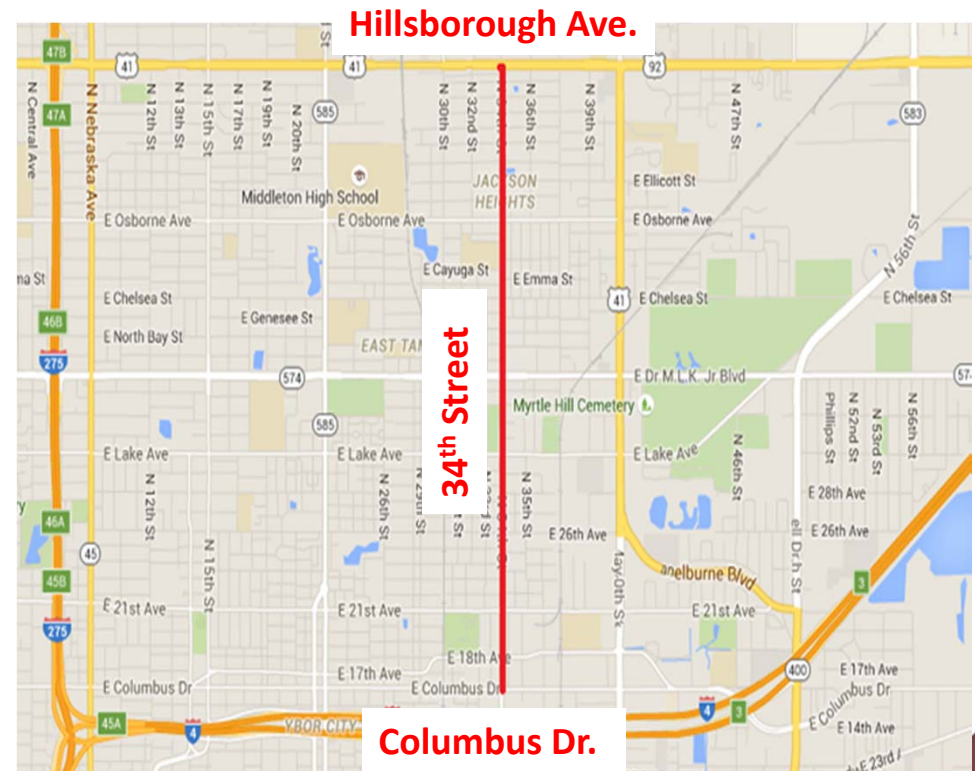
34th Street

From

Columbus Drive to Hillsborough Avenue

Existing Conditions of 34th Street

- Two-lane collector roadway
 - Four-lane section from Columbus Dr to 21st Ave. and from Lake Ave. to Dr. Martin Luther King Jr. Blvd.
 - Posted speed of 30 to 40 mph
- 6,000 to 8,000 vehicles per day as well as heavy bike and pedestrian traffic
- Businesses, Schools, Residences, & Places of Worship
- Truck Route
- HART Bus Route 5
- Significant Crash History



Project Information

- The project is in partnership with:
 - East Tampa Community Redevelopment Area
 - Florida Department of Transportation
 - Federal Highway Safety Funds
- Two mile segment from Columbus Drive to Hillsborough Avenue
- The project is part of the East Tampa CRA's Strategic Action Plan



Crash Data (2009 – 2011)

- 98 total crashes
- 50 crashes at intersections
- 40 angle and left-turn crashes
“T-bone”
- 7 pedestrian & 2 bike crashes

Table 1: Crash Attributes 34th Street

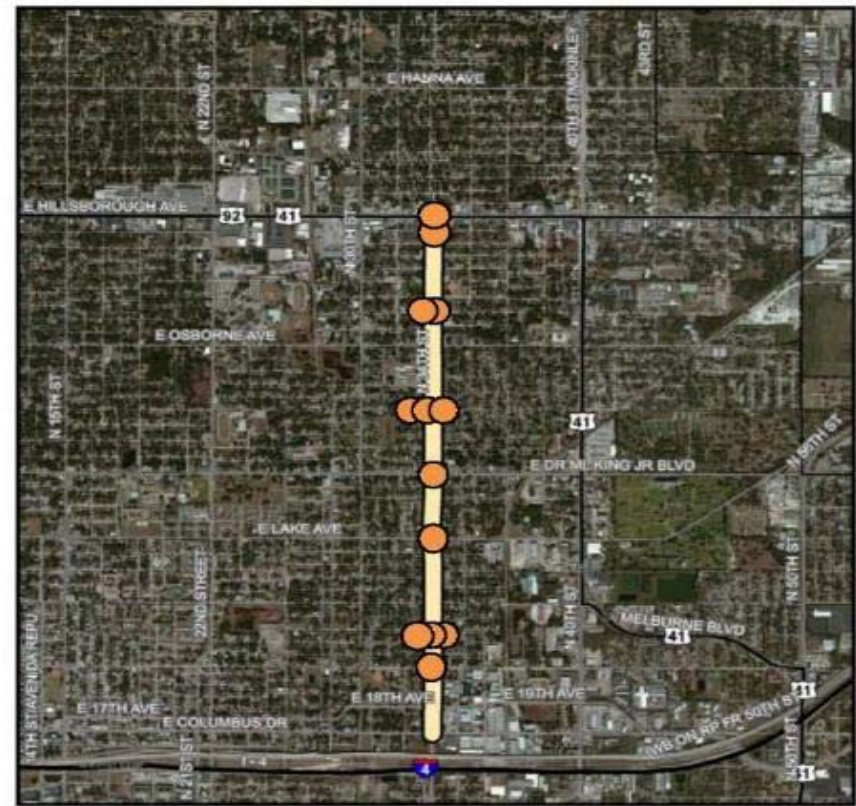
	Corridor Crashes	Percent of Total
All Crashes	98	
Fatal	5	5%
Incapacitating	9	9%
Angle	30	31%
Left turn	8	8%
Sideswipe	6	6%
Rear-End	11	11%
Ped	7	7%
Bike	2	2%
Night	3	3%
Wet	7	7%
At intersection	50	51%

- One of the top 3 severe/fatal clusters in Tampa



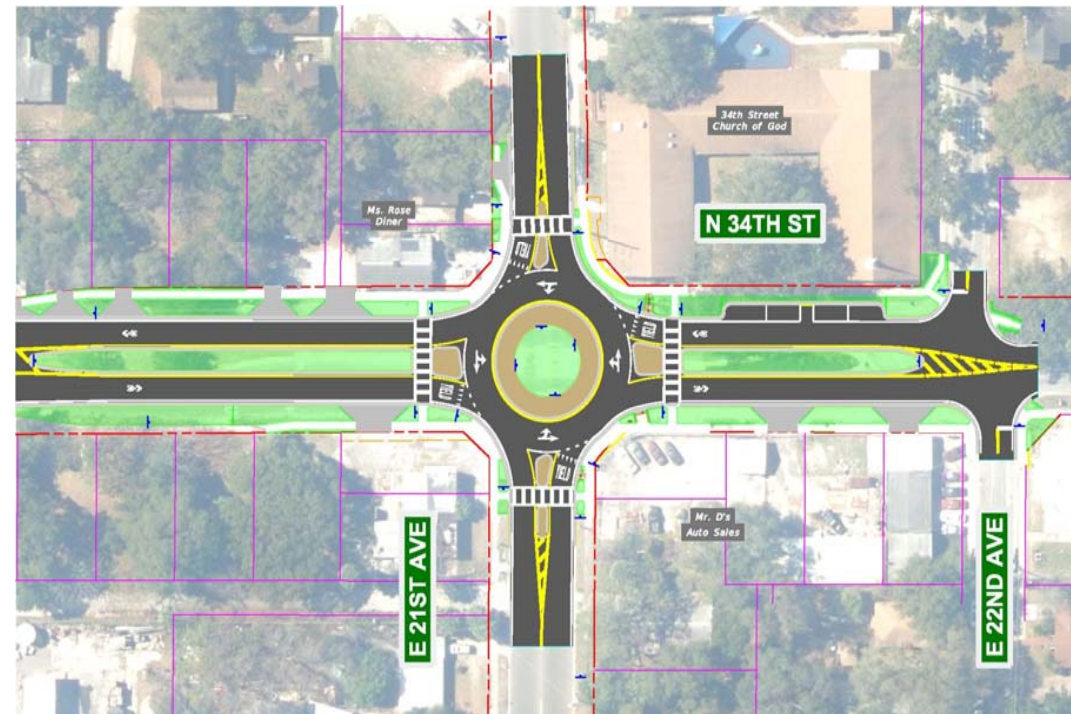
Crash Data (2009 – 2011)

- 14 SEVERE/FATAL CRASHES IN 3 YEARS
 - 9 Incapacitating injury
 - 5 Fatal
 - 7 pedestrian & 2 bike crashes
 - Speed was determined to be the primary contributing factor to the corridor crashes
- 5 SEVERE CRASHES PER YEAR



Proposed Improvements

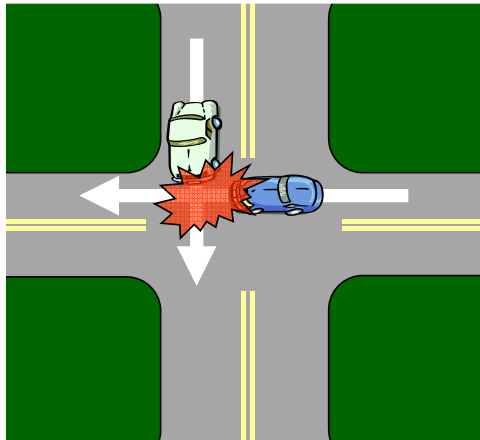
- Roundabouts
 - 21st Ave (2-Way Stop)
 - Lake Ave (Signalized)
 - Osborne Ave (Signalized)
- Road Diet (4 to 2 Through Lanes)
 - Columbus Dr to 21st Ave
 - Lake Ave to Dr. Martin Luther King Jr. Blvd
- Bicycle Facilities
- Reduced Speed Limit to 30 mph
- New sidewalks & Pedestrian ramps at roundabouts



Roundabouts: Difference in Crash Type

Typical 4-leg intersection

Angle

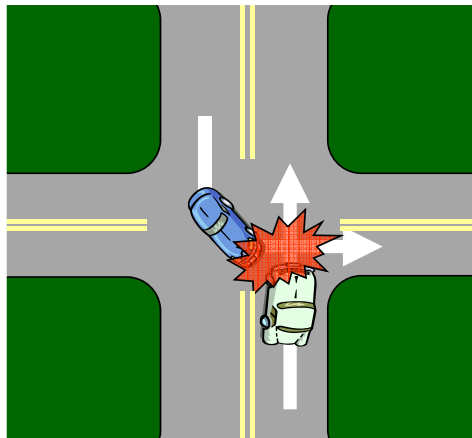


70% of all Fatal Crashes



43% of all Fatal Crashes

Left turn



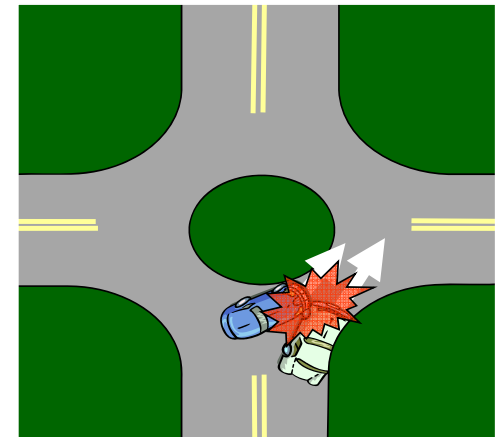
18% of all Fatal Crashes



42% of all Fatal Crashes

Roundabout

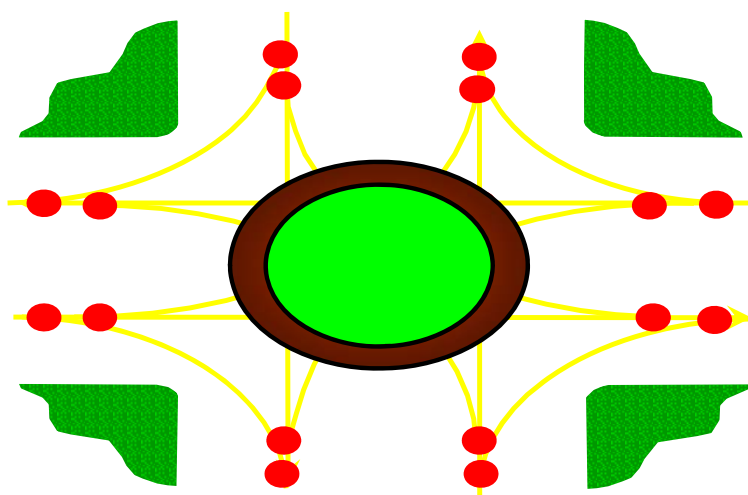
Sideswipe



Less than 3% of all Fatal Crashes at Stop Controlled and Signal Intersections

Conflict Points

Standard 4-Leg Intersection



32 conflict points

- High-speed
- High-angle
- High-energy

$\frac{3}{4}$
reduction

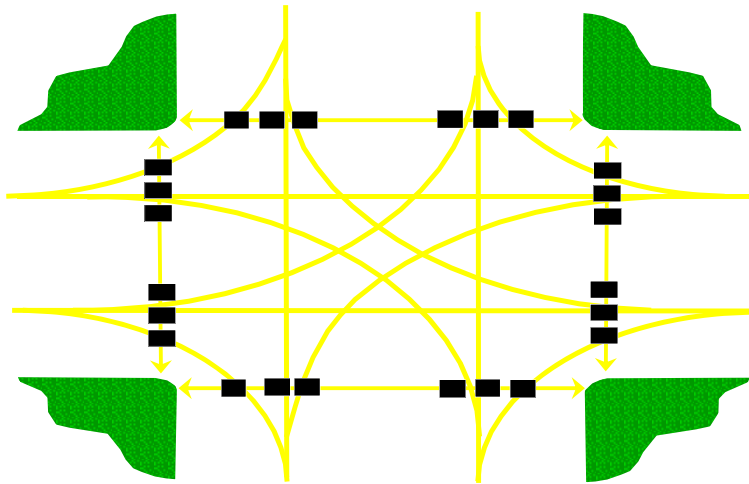
What if we designed an intersection starting with the notion of removing the high conflict zone?

(What a concept!)

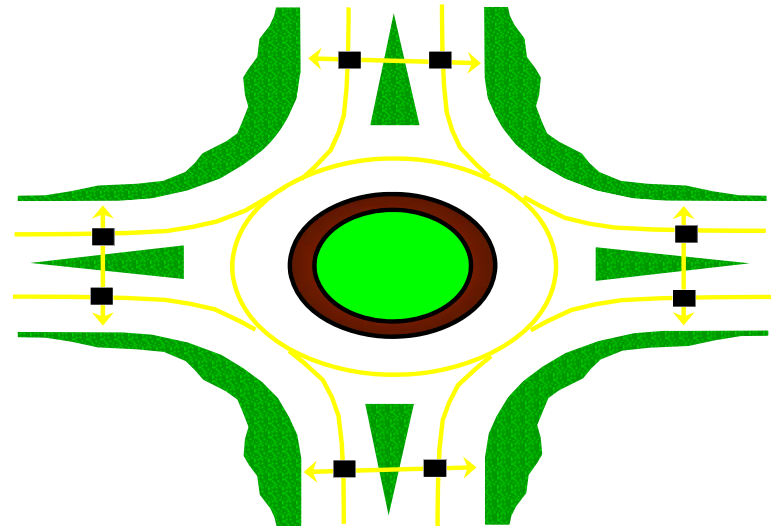
8 conflict points

- Low-speed
- Low-angle
- Low-energy

Conflict Points: Pedestrian/Vehicle



24 conflict points



8 conflict points

$\frac{2}{3}$
reduction

National Roundabout Safety Study Results



Convert signalized intersection to roundabout

48%

All crashes

60%

Fatal/injury
crashes

Convert two-way stop intersection to roundabout

44%

All crashes

78%

1-lane

72%

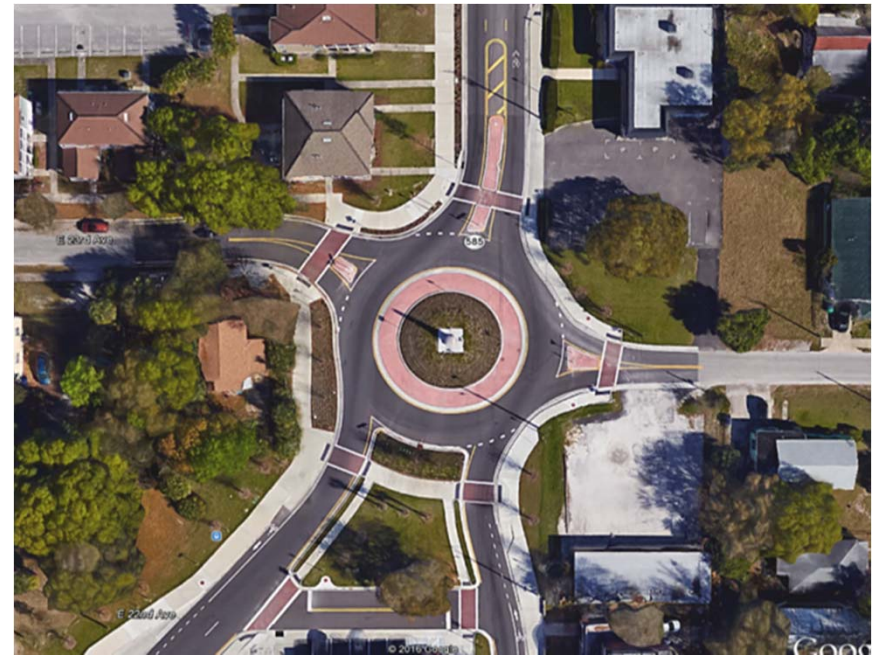
2-lane

Fatal/injury
crashes

For Urban Areas, Source: National Cooperative Highway Research Program Report 572 (2) (2007)

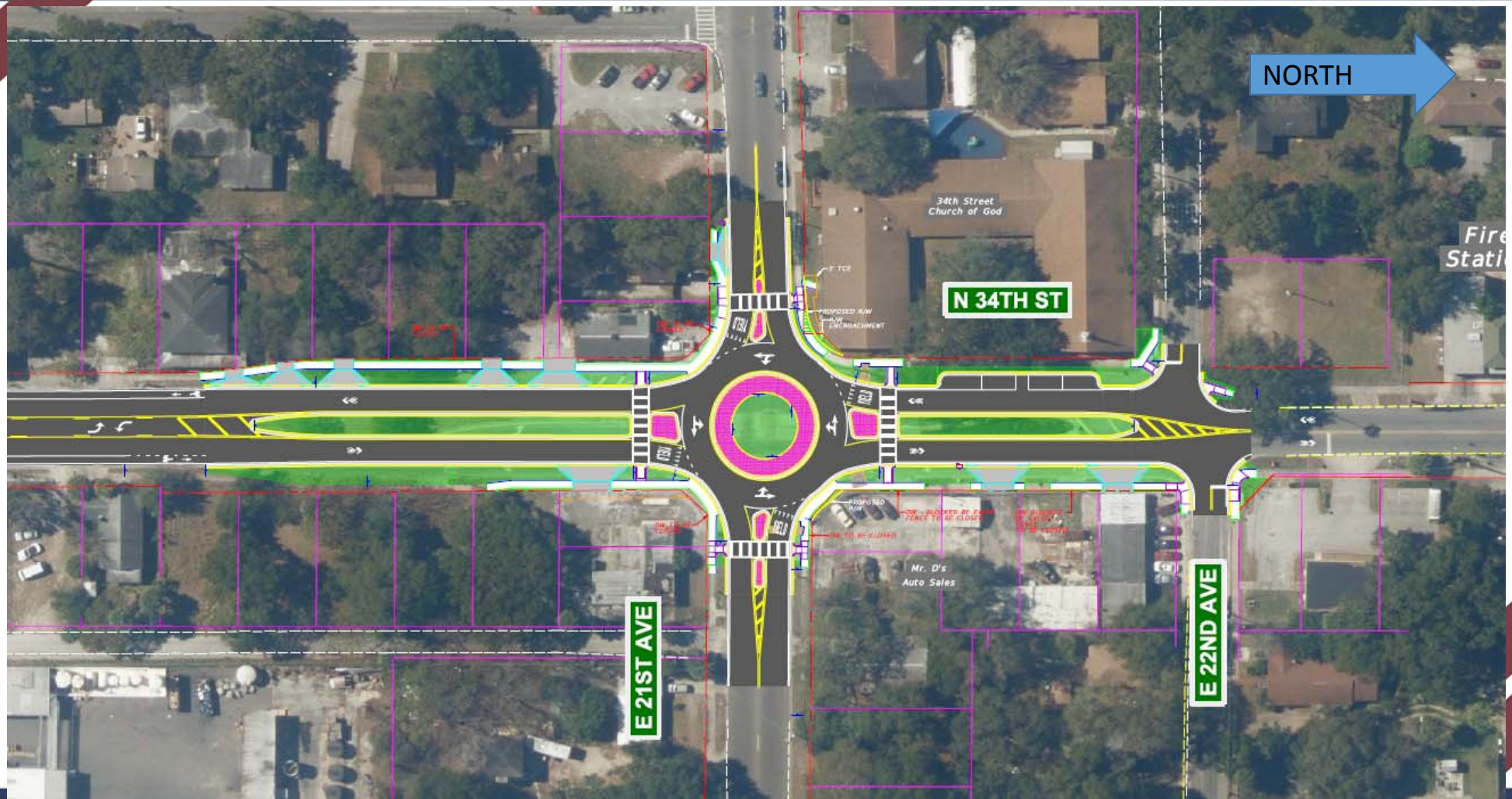
Other Roundabout Benefits

- Pedestrian Safety
 - Provides refuge island
 - Lower vehicular speed
- Aesthetics
 - More green space
- Less Maintenance & Operations Cost

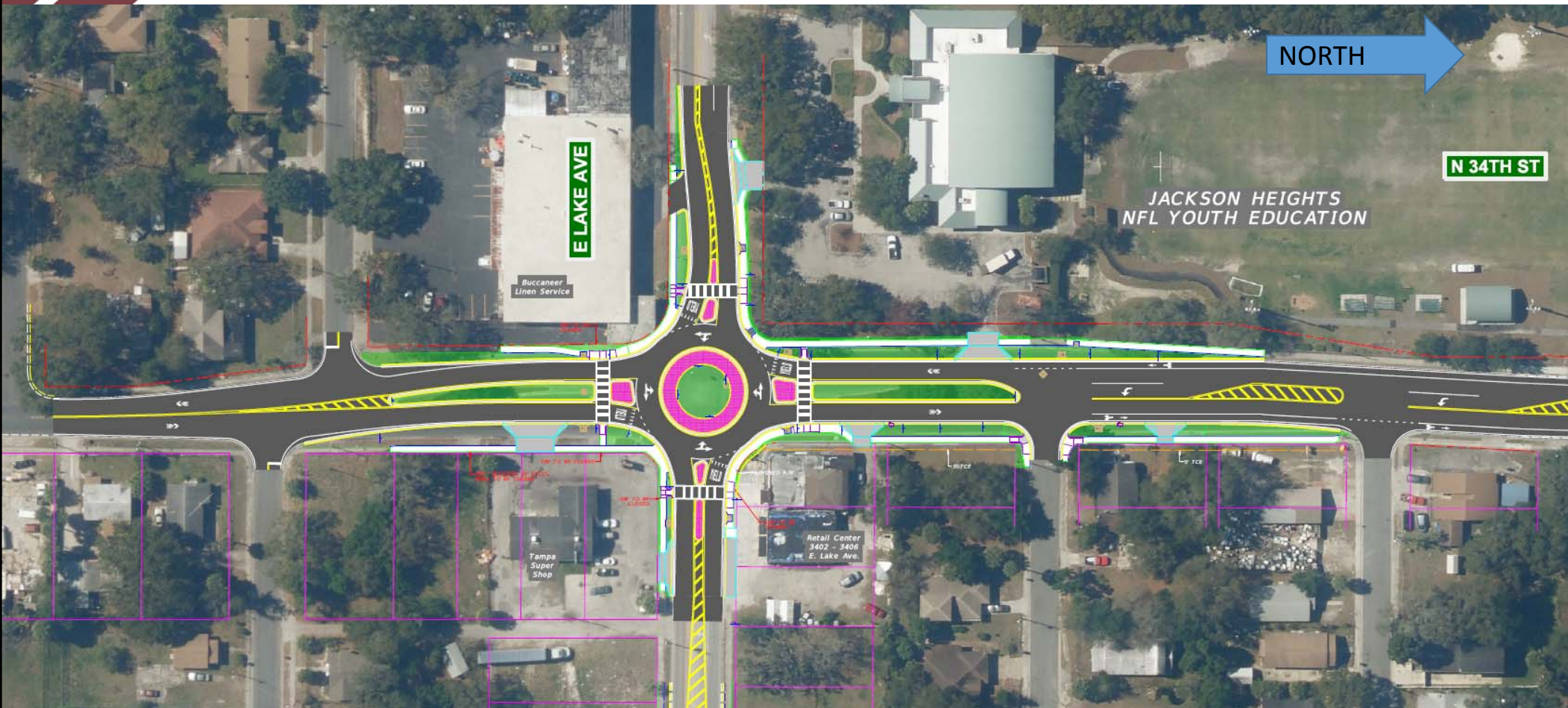


21st/22nd Street Roundabout

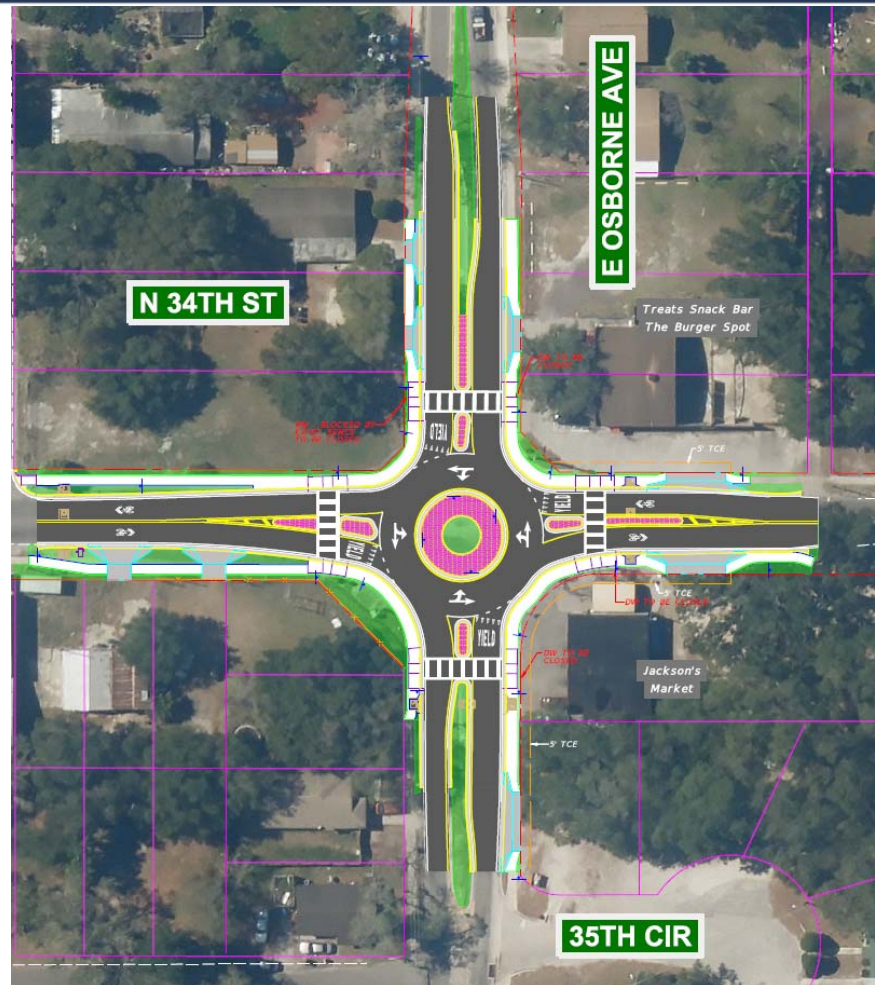
Roundabout at 21st Ave



Roundabout at E. Lake Ave.



Roundabout at E. Osborne Ave.



NORTH

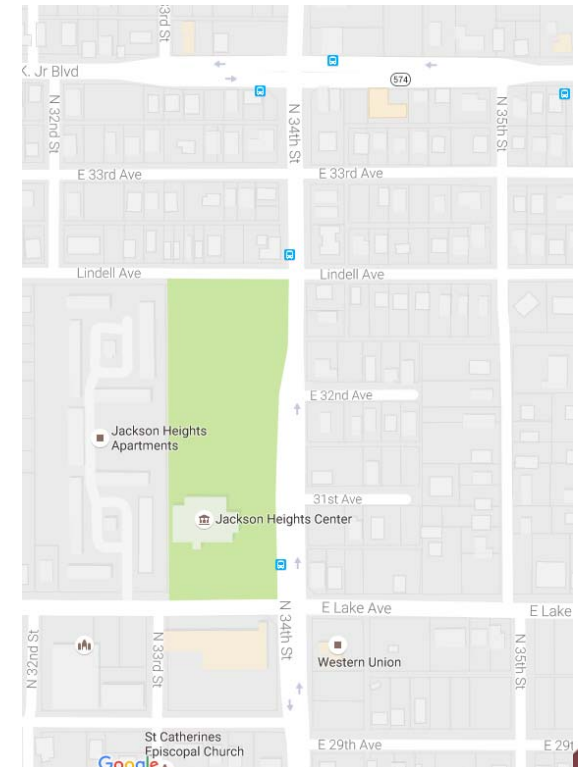
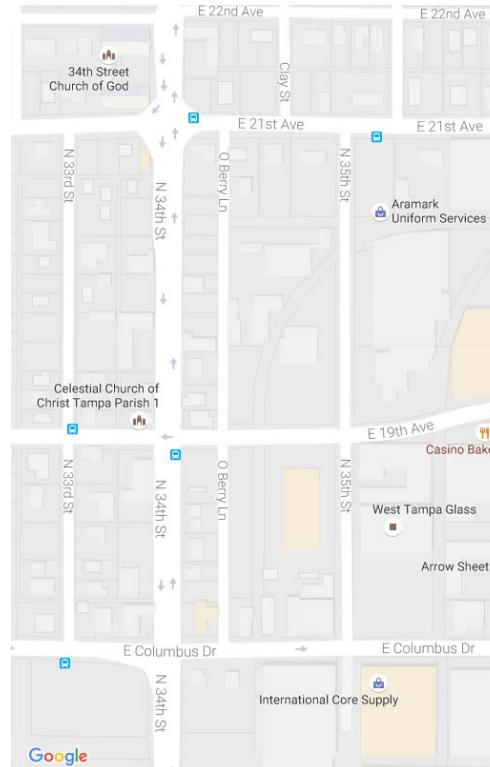
Right-of-Way and Access Management



- The project may require corner clips and temporary construction easements at the following intersections
 - 34th Street and 21st Avenue
 - 34th Street and Lake Avenue
 - 34th Street and Osborne Avenue
- The City and a neighborhood liaison have been meeting with property owners that are being directly affected with the construction of roundabouts

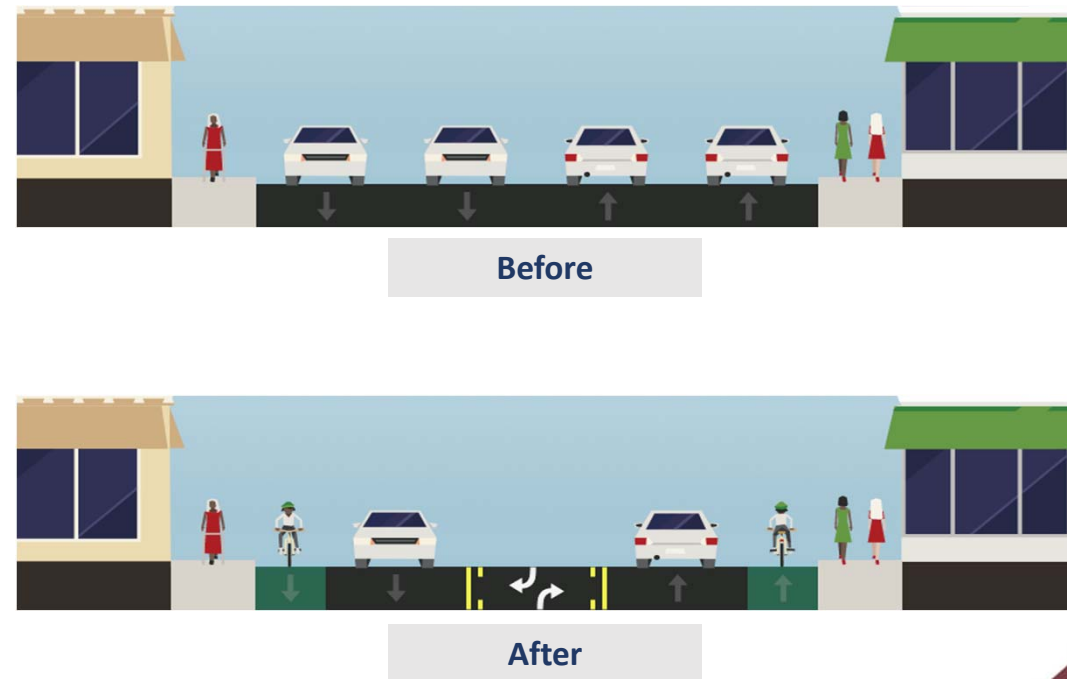
Road Diet Portion

- Road Diet (4 to 2 Through Lanes)
 - Columbus Dr to 21st Ave
 - Lake Ave to Dr. Martin Luther King Jr. Blvd
- Bicycle Facilities
- Reduced Speed Limit to 30 mph



Road Diet Benefits

- Provides space for other modes
- Reduces crossing distance and simplifies pedestrian crossing
- Median/center turn lane enhances traffic safety
- Reduces speeds



Reduced Speed and Pedestrians

Project Schedule and Costs

	Schedule		Amount/Funding Sources
	Start	Finish	
Design	Spring 2014	Fall 2016	\$400,000/FDOT
Property Acquisition	Fall 2016	Fall 2018	\$1.2M/FDOT/City
Construction (60% Estimate)	Spring 2019	Fall 2020	\$2.3M/FDOT/City

Any Questions?

Reduction in Crashes – 40th St Project

- Crashes have been reduced by 59%
- Significant reduction of rear end and angle crashes



Location	Before Construction Crashes	After Construction Crashes	Yearly Crash Reduction
	Yearly Average (2005-2009)	Yearly Average (2012-2014)	
40th St at Hanna Ave	26.6	11.3	57%
40th St at Yukon St	6.2	3.3	47%
40th St at E. River Hills Dr	12.2	3.3	73%
Total	15	6	59%