

Oviedo Mobility Plan

Preliminary Project and Program Identification
City Council Work Session

May 3, 2021





Project Purpose

- Creation of a city-wide Mobility Plan to address near-term transportation challenges
- Identify and prioritize potential improvements and programs
- Create a 10-year schedule of improvements and funding strategies
- Funded by MetroPlan Orlando



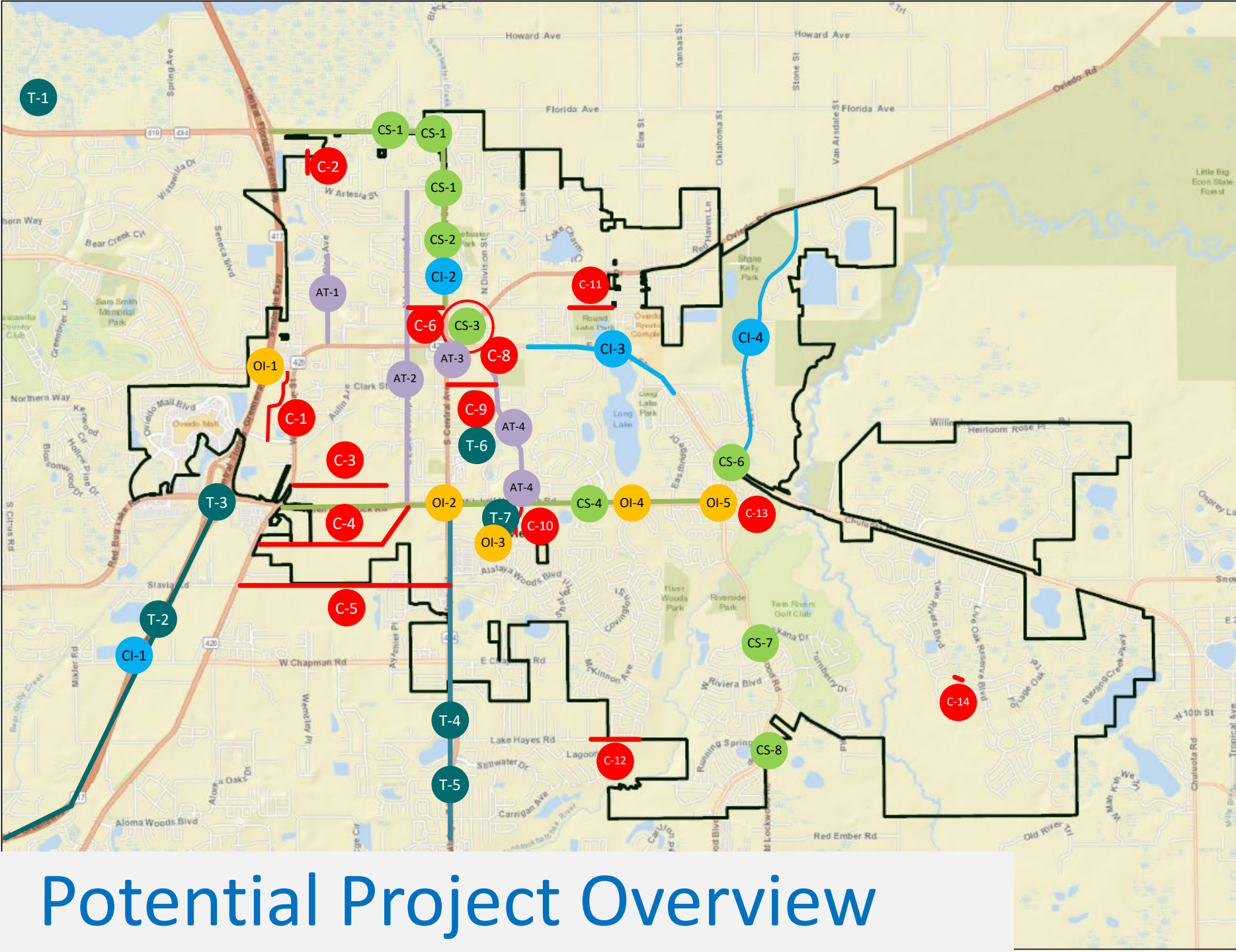
Preliminary Project and Program Identification Summary

- VHB and City Staff have identified potential new capital improvement projects and programs to improve mobility within the City of Oviedo
- Additional input will be solicited from the public to identify additional projects and programs
- Planned and funded project provided by others (Seminole County, MetroPlan Orlando, FDOT, developers) are included



Project Types

- The following project categories are explored in this presentation:
 - Connectivity
 - Complete Streets and Safety Improvements
 - Sidewalks, Trails and Active Transportation Facilities
 - Multimodal Capacity Improvements
 - Transit
 - Connected and Autonomous Vehicles (CAV)
 - Programming and Policies
 - Operational Improvements
 - Additional Projects



- C** Connectivity
- CS** Complete Streets
- AT** Sidewalk, Trails & Active Transportation
- T** Transit and Multimodal
- CI** Capacity
- OI** Operational Improvements

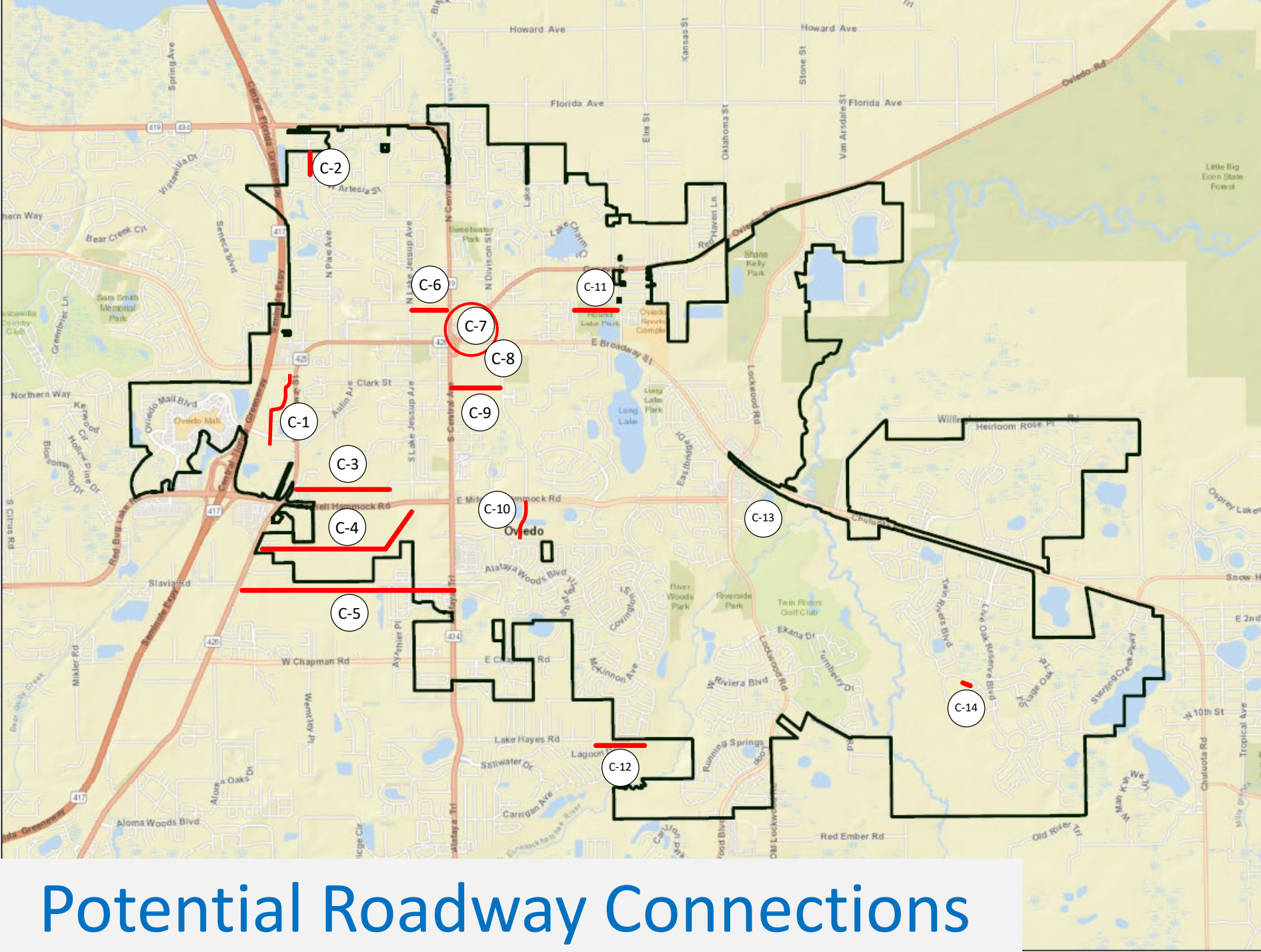
Potential Project Overview



Connectivity

- Congestion along major corridors, especially Mitchell Hammock Road and SR 434, has presented challenges for the community
- Although capacity improvements have been suggested and programmed in the past, roadway connectivity should be considered the first step towards addressing congestion
- Improvements in connectivity work to:
 - Distribute vehicular traffic to a network providing more options
 - Reduce volume and congestion on arterial roadways
 - Reduce number of roads to be maintained that serve small areas
 - Increase walkability and bikeability
 - Improve emergency response

A Charlotte, North Carolina study in 2012 found that neighborhoods with low densities and disconnected streets require four times the number of fire stations at four times the cost compared with more compact and connected neighborhoods.

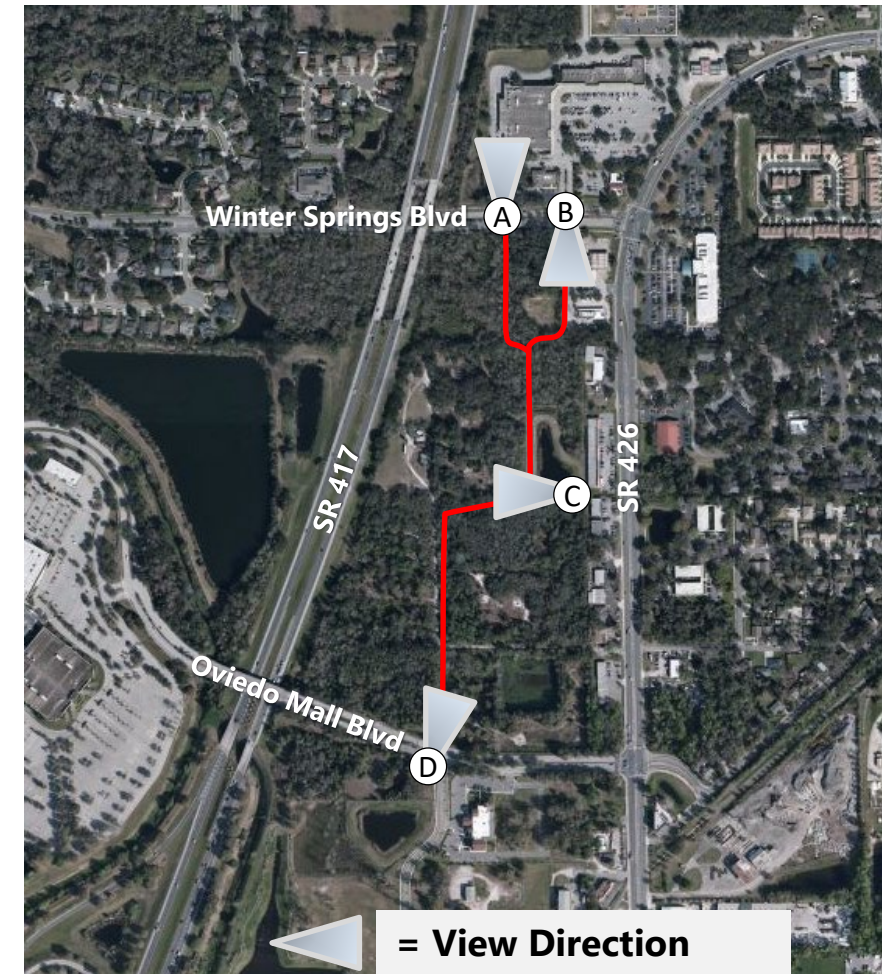
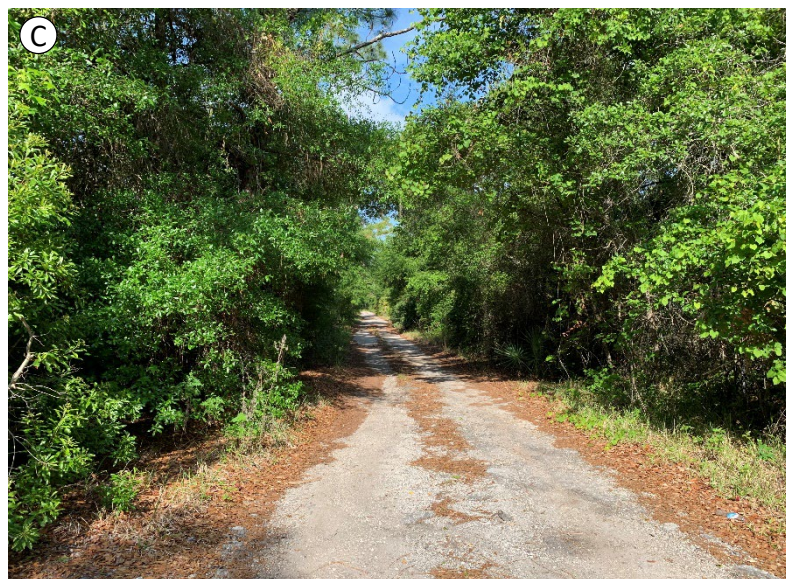


- C-1. Oviedo Medical Drive to Winter Springs Boulevard
- C-2. Connect Pine Avenue to SR 434
- C-3. Clonts Street Extension to SR 426 (Mitchell Hammock Road Access Management Plan)
- C-4. Duda Road Extension to Lake Jessup Avenue (Mitchell Hammock Road Access Management Plan)
- C-5. Extension of Slavia Road from SR 426 to SR 434 (TMP)
- C-6. Franklin Street Extension from Lake Jesup Ave to SR 434 (TMP)
- C-7. Re-alignment of Geneva Drive (CIP)
- C-8. Geneva Drive to SR 434 Connector (CIP)
- C-9. Clark Street to Oviedo Blvd (TMP)
- C-10. Oviedo Blvd Extension (Mitchell Hammock Road Access Management Plan)
- C-11. Harrison Street to Franklin St (TMP)
- C-12. Lake Hayes Road Extension
- C-13. Mitchell Hammock Rd to SR 419 (TMP)
- C-14. Riverside to Live Oak Pedestrian Connection

Potential Roadway Connections

1. Oviedo Medical Drive to Winter Springs Blvd

Source: City Staff



1. Oviedo Medical Drive to Winter Springs Blvd

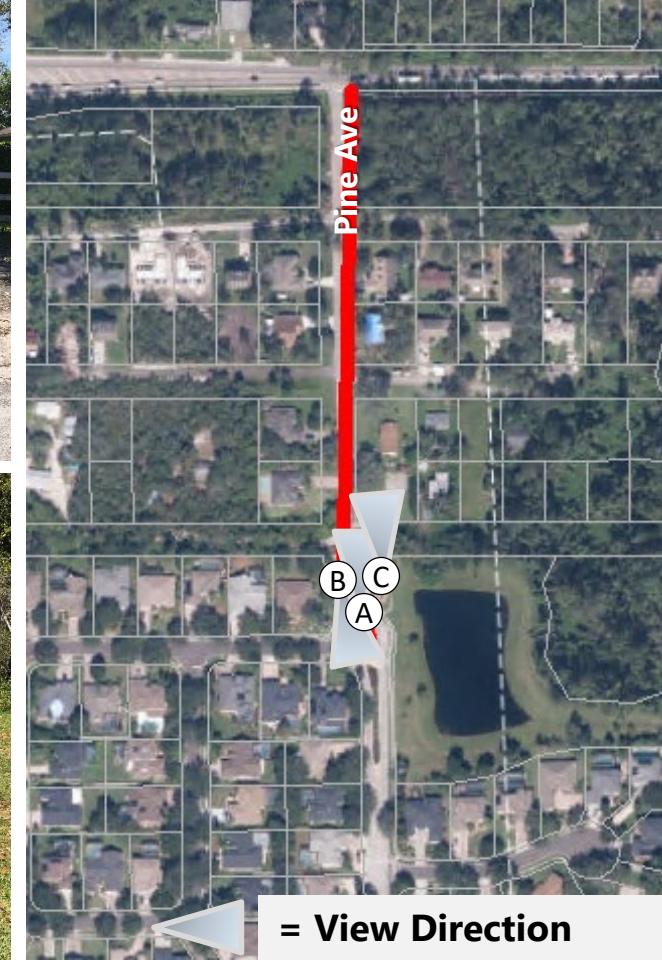
Source: City Staff

- Opportunities
 - Alternative to SR 426
- Constraints
 - ROW acquisition
 - Intersection spacing at connection to Winter Spring Boulevard
 - Environmental/Wetland impacts
 - Alternative of a road through existing development



2. Connect Pine Ave through to SR 434

Source: Transportation Element Policy 2-1.5.5

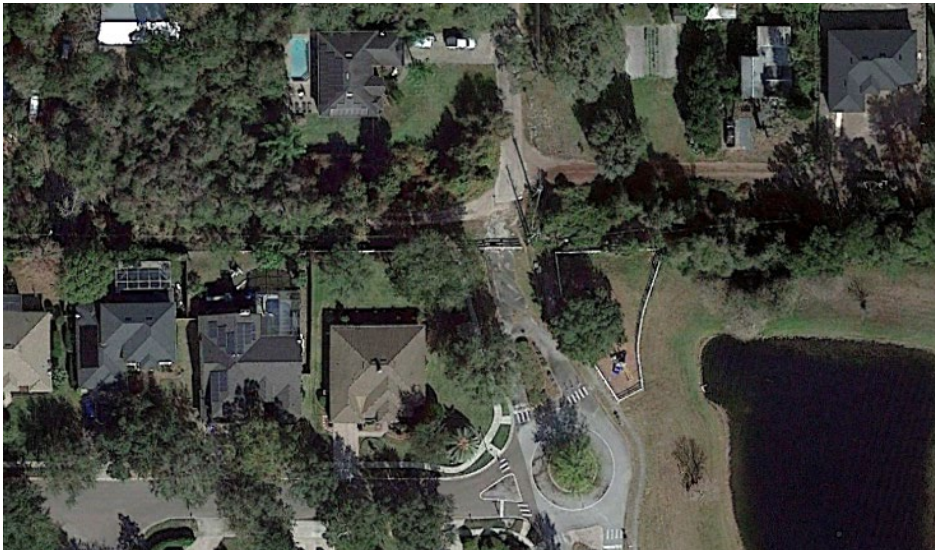




2. Connect Pine Ave through to SR 434

Source: Transportation Element Policy 2-1.5.5

- Opportunities
 - Stubout is existing
 - Minimal distance to make connection
- Constraints
 - Policy 2-1.5.5 has multiple conditions before this connection can be made
 - Connecting to County Road (Palm Drive)



Scanned into SIRE
Land Doc 2/17/17 AGS

UPDATED BOOK & SIRE
2/20/17 PKD

Comprehensive Plan

City of Oviedo, Florida

Prepared by
THE PLANNING ZONING AND APPEALS BOARD

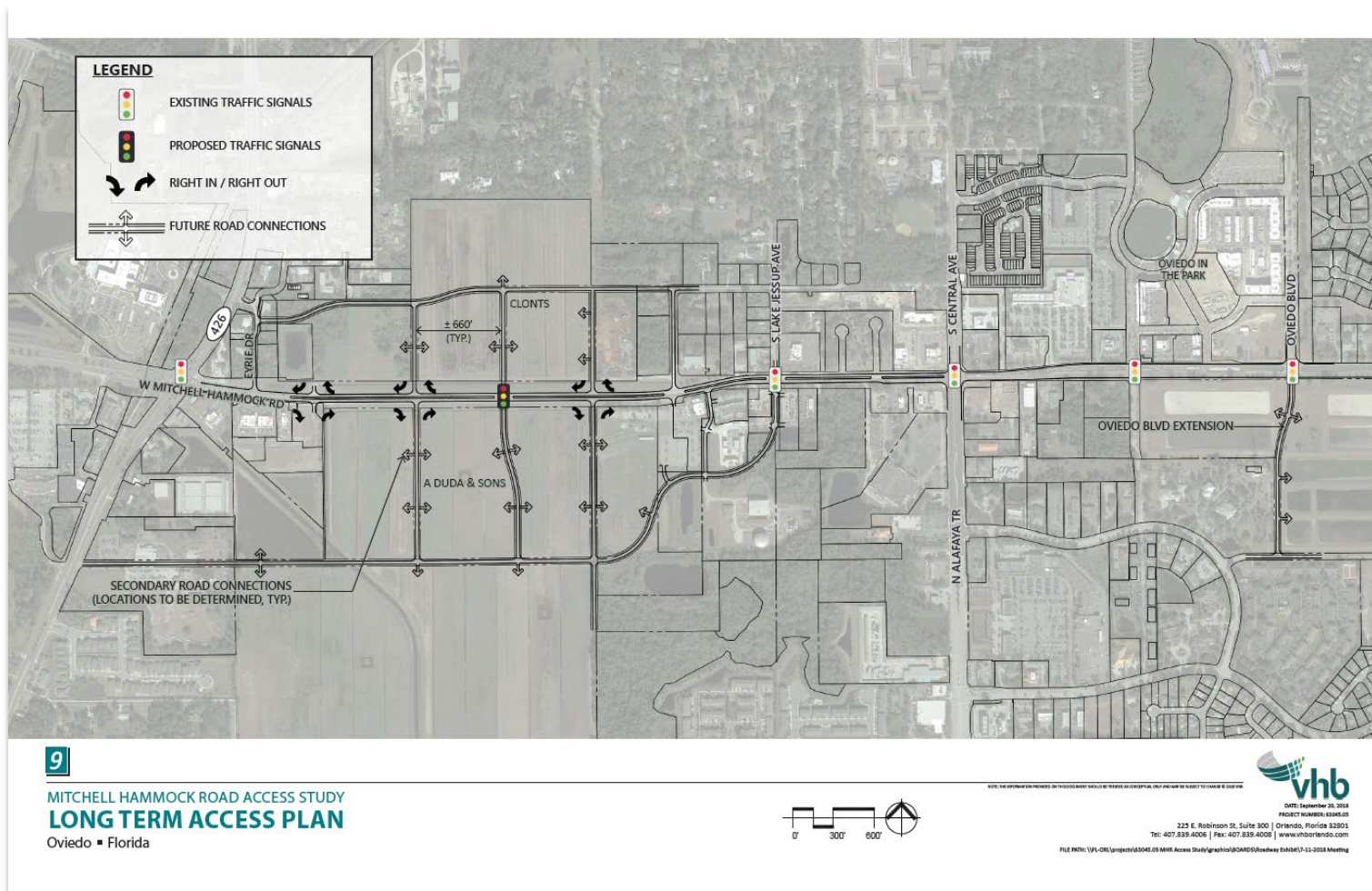
On behalf of
THE OVIEDO CITY COUNCIL

Adopted
NOVEMBER 1, 2010



3. Clonts Street Extension to SR 426

Source: Mitchell Hammock Road Access Management Plan (2018)



The City of Oviedo



RFQ# 17-19, Work Order Number PW-18-25

Mitchell Hammock Road

Access Study



3. Clonts Street Extension to SR 426

Source: Mitchell Hammock Road Access Management Plan (2018)



3. Clonts Street Extension to SR 426

Source: Mitchell Hammock Road Access Management Plan (2018)

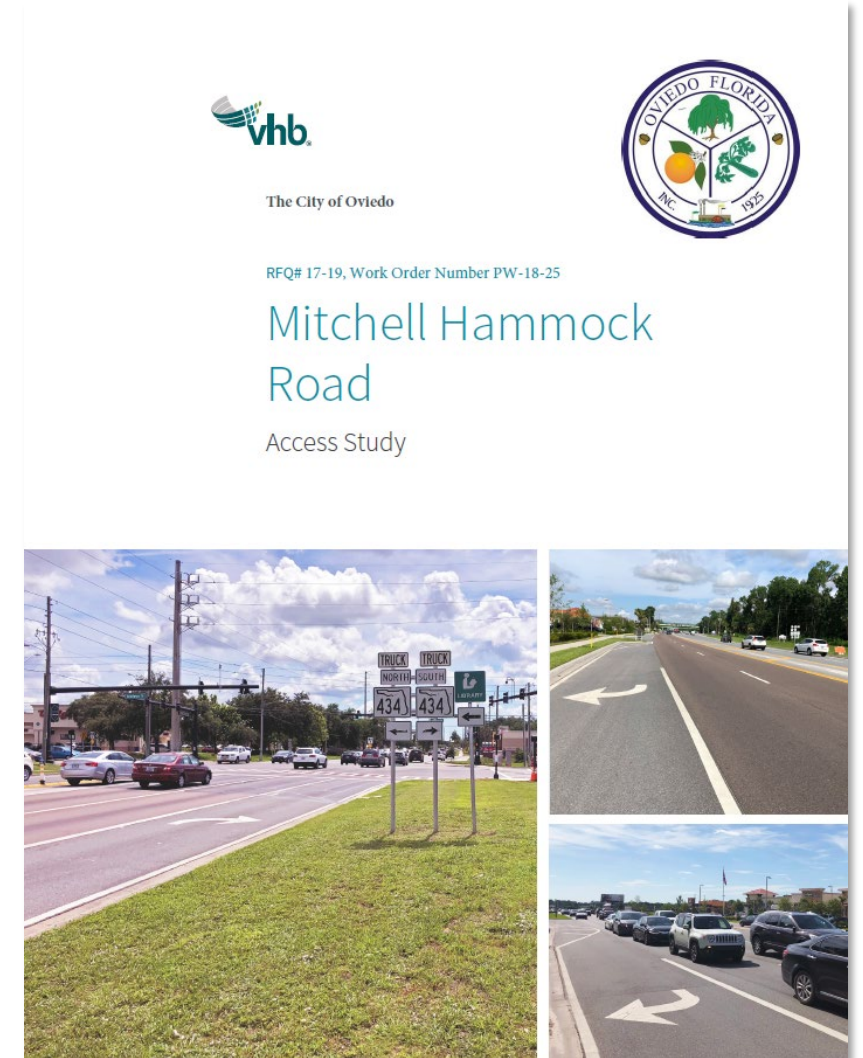
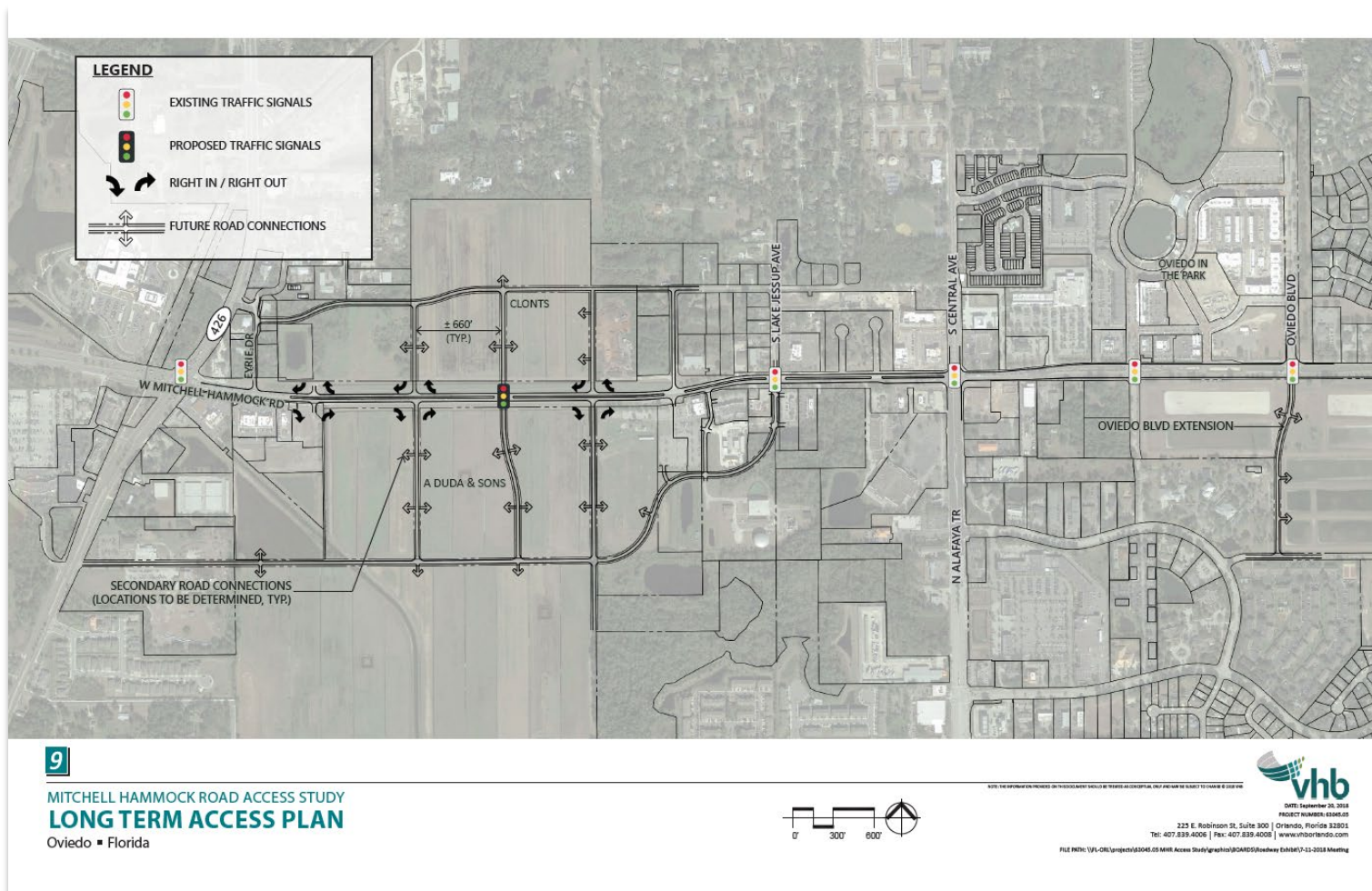
- Opportunities
 - Alternative route for Mitchell Hammock Road
 - Combined with potential connection south of Mitchell Hammock, this alternative could reduce traffic on Mitchell Hammock segments
 - Opens up property for high-density, urban development pattern
- Constraints
 - Alignment through private property
 - Bifurcates large parcel
 - Property in Flood Zone A
 - Cost of connection vs alternative connection/attracting new development
 - Potential conflicts with existing development





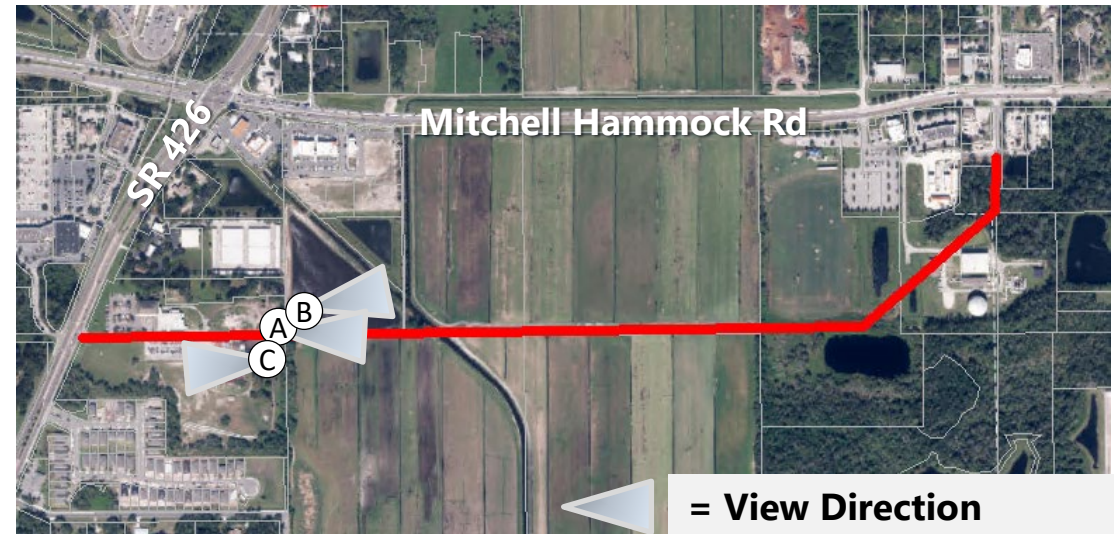
4. Duda Road Extension to Lake Jessup Avenue

Source: Mitchell Hammock Road Access Management Plan (2018)



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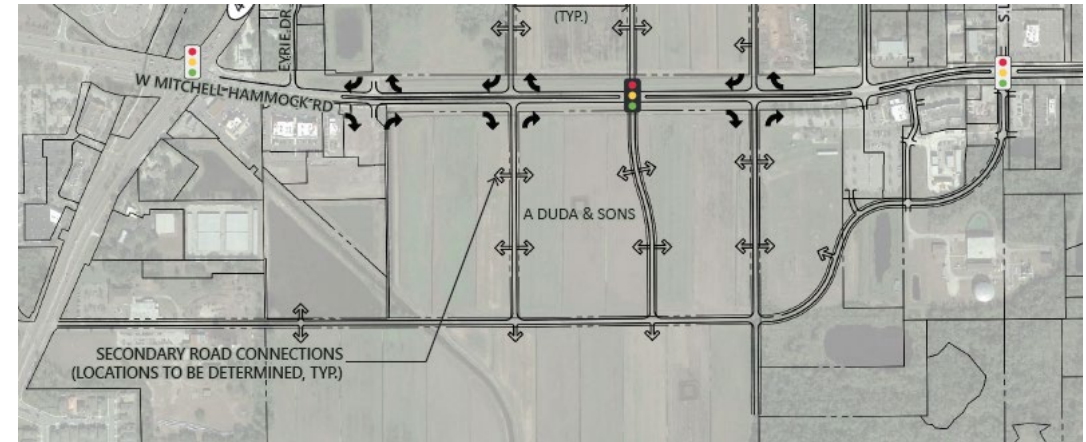


4. Duda Road Extension to Lake Jessup Avenue

Source: Mitchell Hammock Road Access Management Plan (2018)

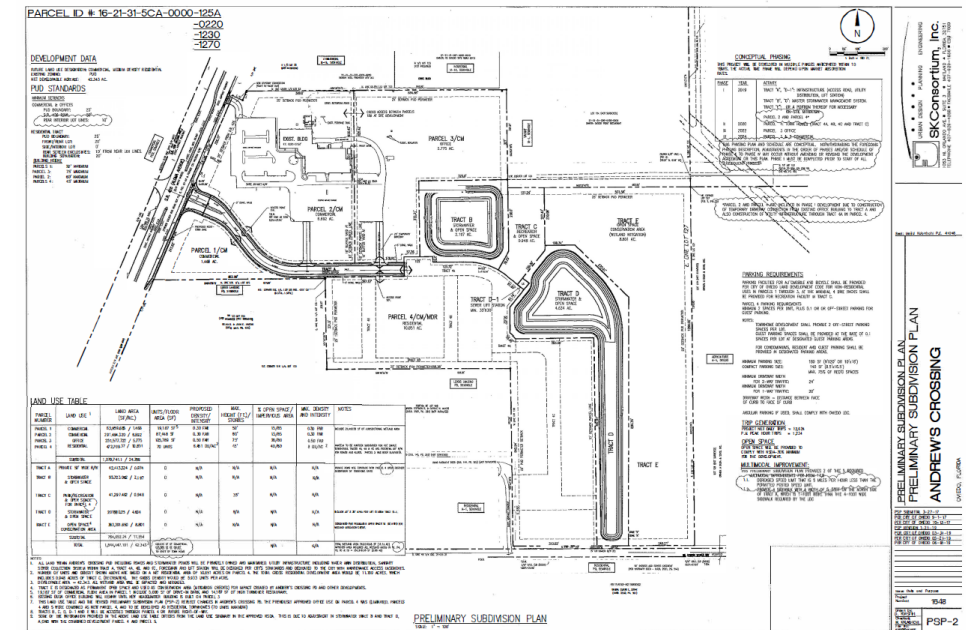
- Opportunities

- Alternative route for Mitchell Hammock Road
 - Combined with potential connection north of Mitchell Hammock, this alternative could reduce traffic on Mitchell Hammock segments
- Opens up property for high-density, urban development pattern



■ Constraints

- Alignment through private property
 - Bifurcates large parcels
- Soils to pose challenge to development
- Portion in Flood Zone A
- Cost of connection vs. benefit of another connection in New Downtown/attracting development
- Stormwater pond for Andrews Crossing



5. Extension of Slavia Road from SR 426 to SR 434

Source: Transportation Master Plan/2045 Comp Plan Update



5. Extension of Slavia Road from SR 426 to SR 434

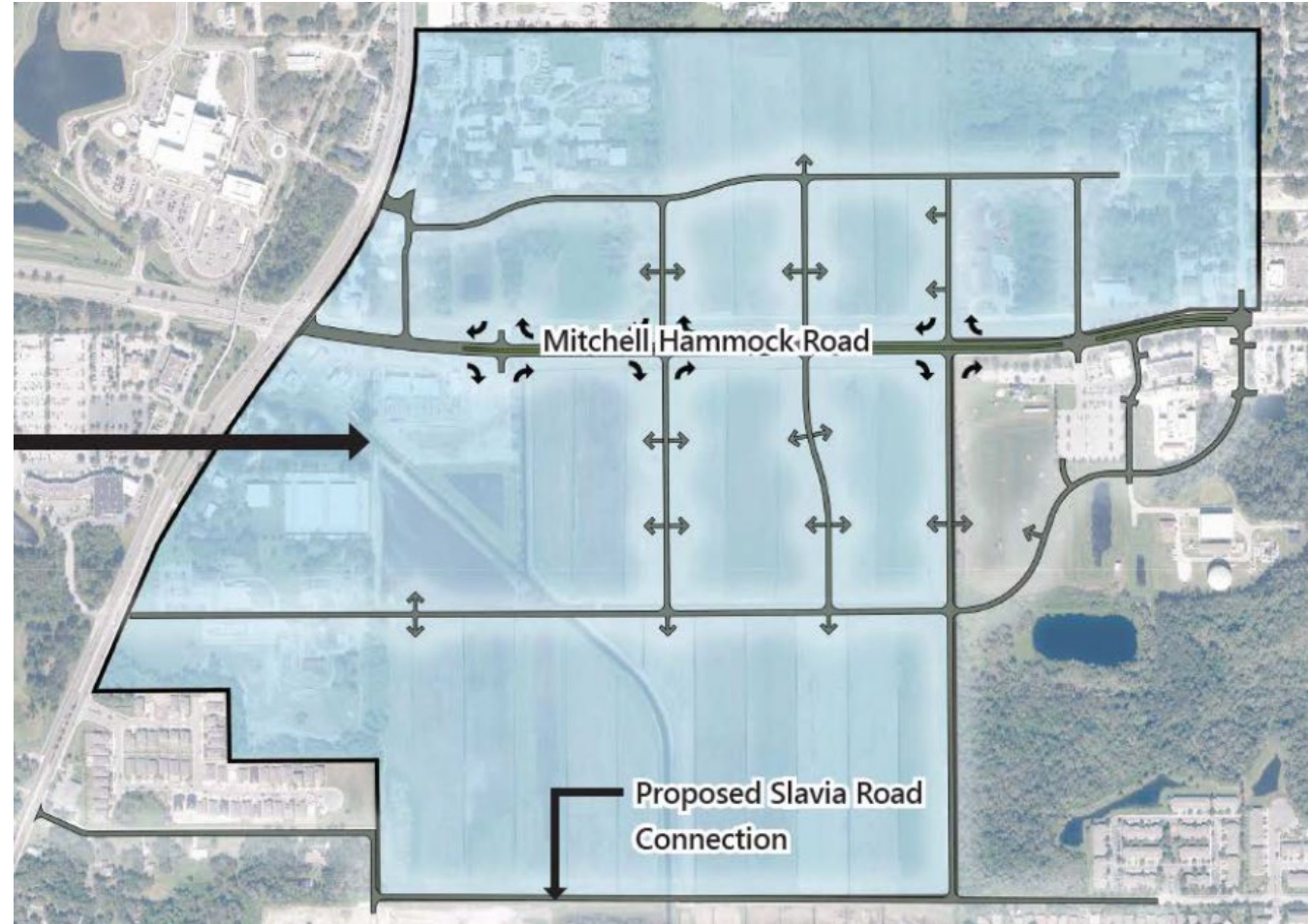
Source: Transportation Master Plan/2045 Comp Plan Update



5. Extension of Slavia Road from SR 426 to SR 434

Source: Transportation Master Plan/2045 Comp Plan Update

- Opportunities
 - MetroPlan Orlando Environmental Screening completed
 - Noted in Comprehensive Plan update
 - Provides additional connection to future potential development on Duda property
 - Provides east-west alternative to Mitchell Hammock Road
- Constraints
 - Soils to pose challenge to development
 - Portion in Flood Zone A
 - Dr. Edward Stoner Way is not aligned with Alafaya Woods Blvd and SR 434



6. Franklin Street Extension from Lake Jesup Ave to SR 434

Source: Transportation Master Plan

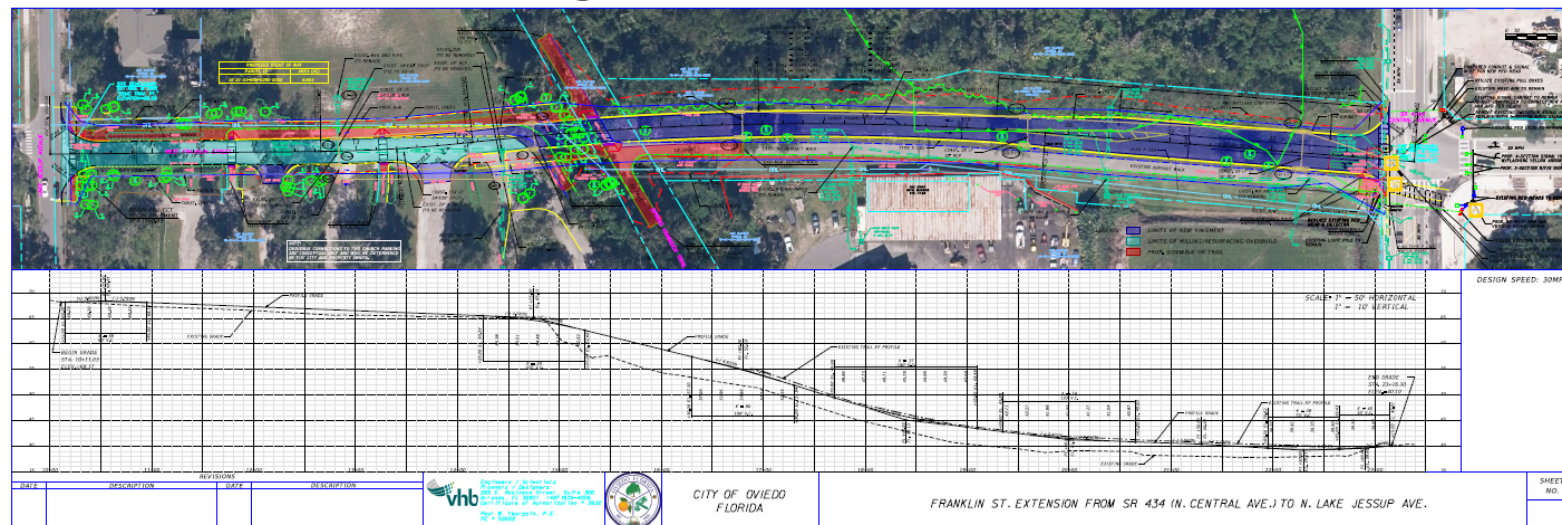


6. Franklin Street Extension from Lake Jesup Ave to SR 434



Source: Transportation Master Plan

- Opportunities
 - Currently under design
 - Use of existing trail ROW
 - Connection between Uptown Oviedo and Oviedo High School
- Constraints
 - Topography
 - Trail crossing



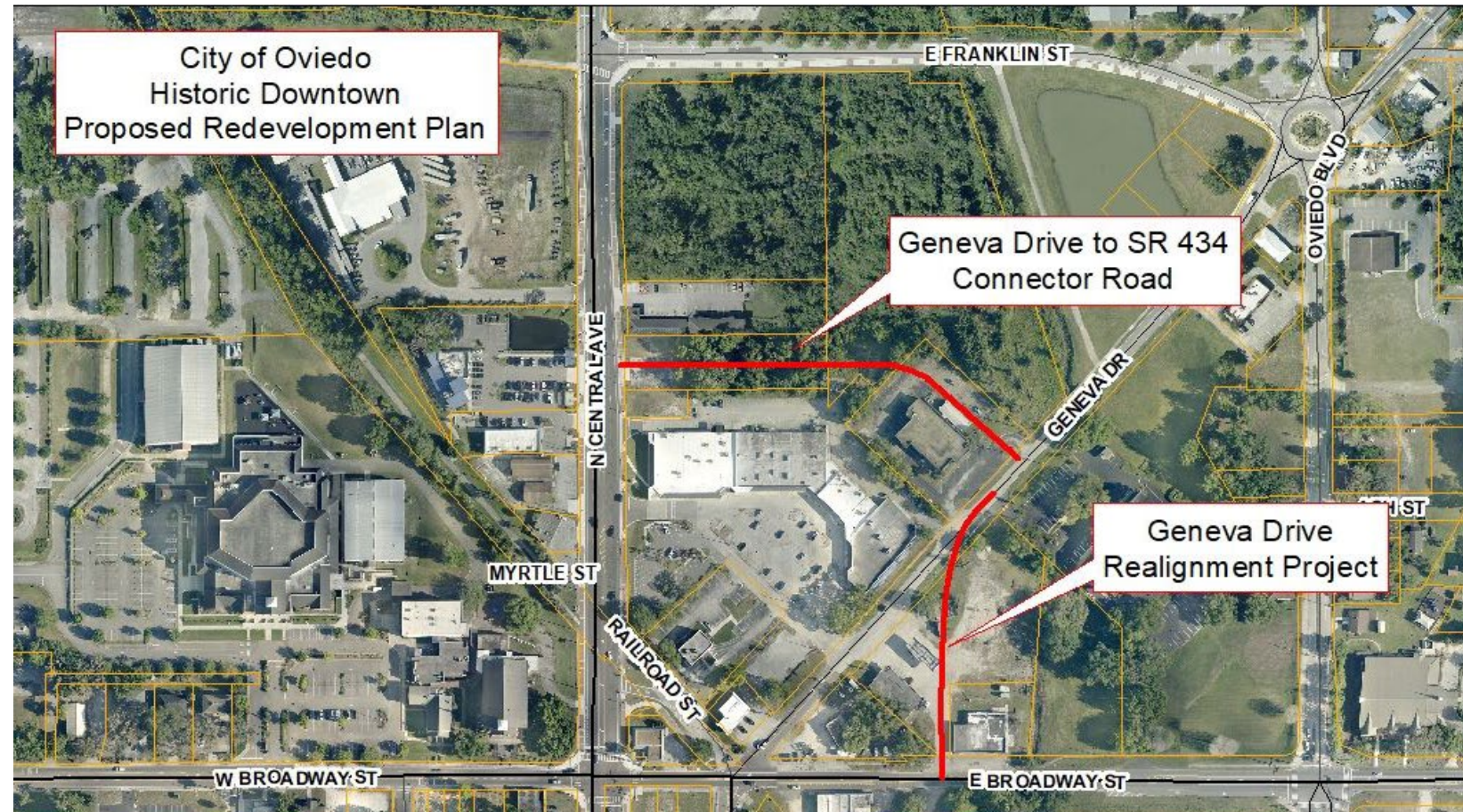


7./8. Re-alignment of Geneva Drive and 434 Connector

Source: Geneva Drive Agreement/CIP 2019-2020

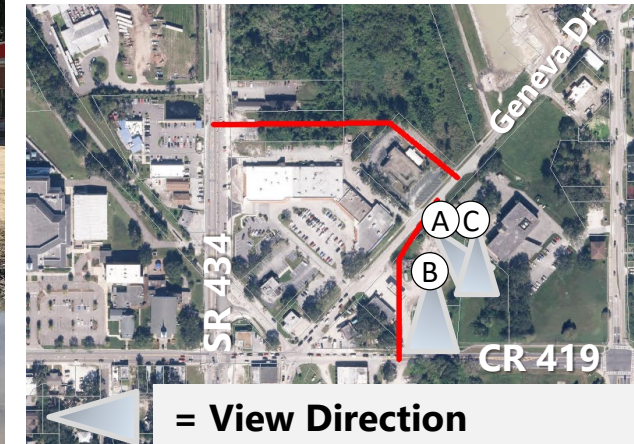
CITY OF OVIEDO UPTOWN MASTER PLAN 2040

Urban Core Zone Plan Update
Prepared for the City of Oviedo, Florida
Final Draft 2020



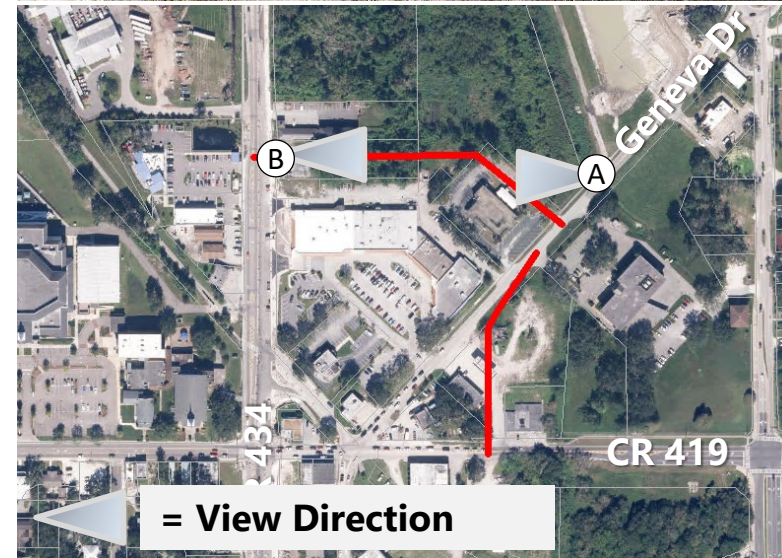
7. Re-alignment of Geneva Drive

Source: Geneva Drive Agreement/CIP 2019-2020



8. Geneva Drive and 434 Connector

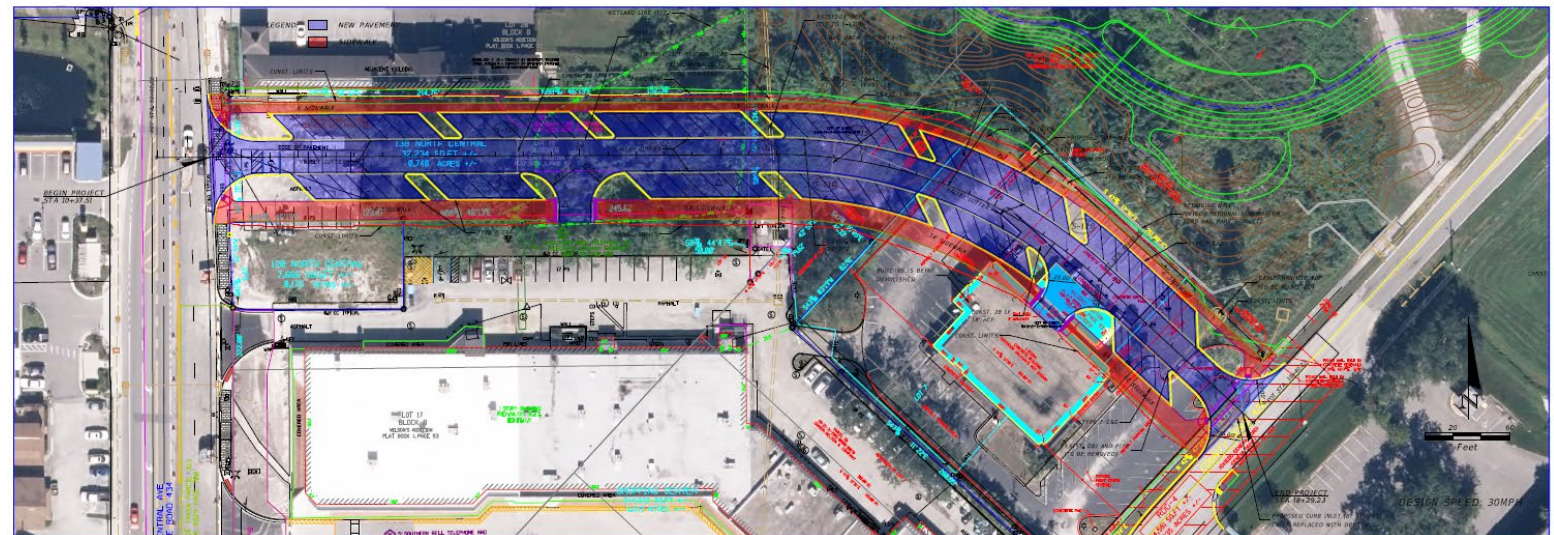
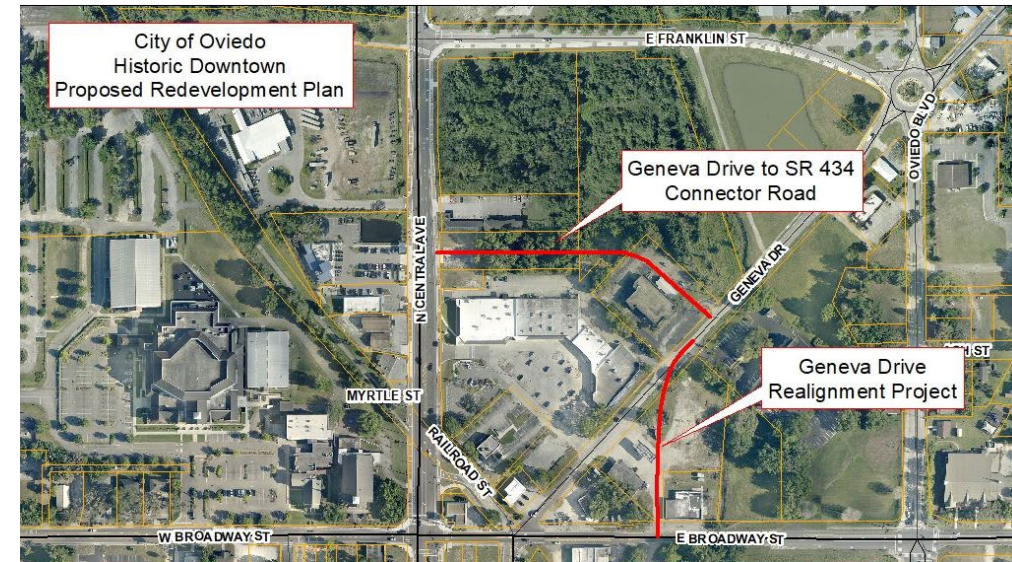
Source: Geneva Drive Agreement/CIP 2019-2020



7./8. Re-alignment of Geneva Drive and 434 Connector

Source: Geneva Drive Agreement/CIP 2019-2020

- Opportunities
 - Master redevelopment plan
 - Improve traffic circulation
 - More attractive development parcels
- Constraints
 - New connections to SR 434 and Broadway Street need to be made carefully to ensure safety



9. Clark Street to Oviedo Boulevard

Source: Transportation Master Plan



9. Clark Street to Oviedo Boulevard

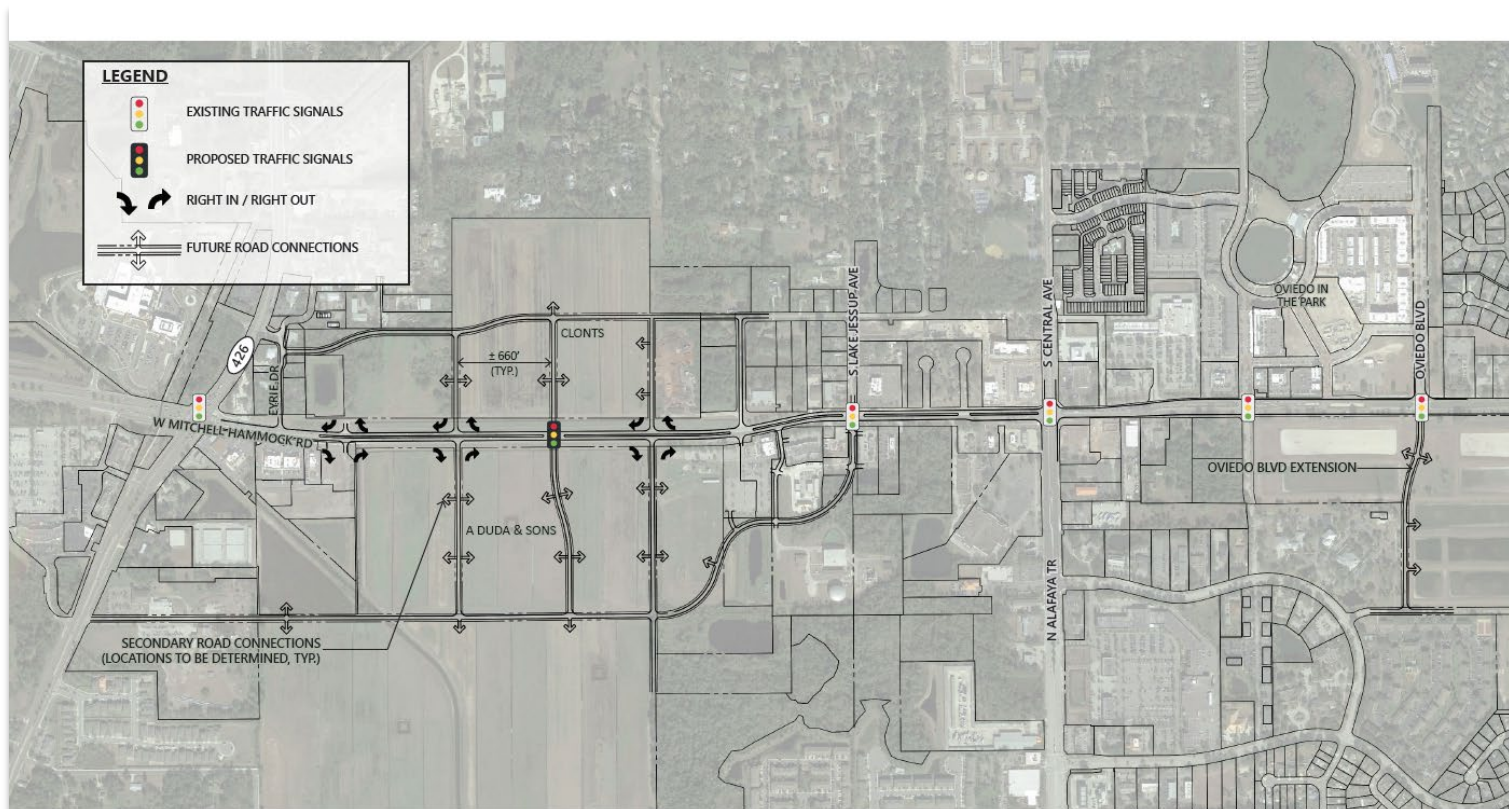
Source: Transportation Master Plan

- Opportunities
 - Alternative to Mitchell Hammock Rd and SR 426 419
 - Connection to Oviedo Aquatic Center
- Constraints
 - Road through parking of Goddard School
 - Wetland and floodplain impacts
- Potential alternative: Hillcrest Street Extension
 - In 2017 Transportation Master Plan
 - Connects to Windy Pine Way
 - Requires property acquisition
 - Potential wetland impacts



10. Oviedo Boulevard Extension to Alexandria Boulevard/ Boston Cemetery to SR 434

Source: Mitchell Hammock Road Access Management Plan (2018)



9

MITCHELL HAMMOCK ROAD ACCESS STUDY
LONG TERM ACCESS PLAN

Oviedo • Florida



DATE: September 20, 2018

PROJECT NUMBER: 18-0018

225 E. Robinson St., Suite 300 | Orlando, Florida 32801

Tel: 407.839.4006 | Fax: 407.839.4008 | www.vhborlando.com

FILE PATH: \\VFL-CR\projects\180018_05_MHRR_Access_Study\graphics\ROADS\Roadway Exhibit\1-11-2018 Meeting



The City of Oviedo

RFQ# 17-19, Work Order Number PW-18-25

Mitchell Hammock Road

Access Study



10. Oviedo Boulevard Extension to Alexandria Boulevard/ Boston Cemetery to SR 434

Source: Mitchell Hammock Road Access Management Plan (2018)





10. Oviedo Boulevard Extension to Alexandria Boulevard/ Boston Cemetery to SR 434

Source: Mitchell Hammock Road Access Management Plan (2018)

- Opportunities
 - Alternative connection from Oviedo on the Park to SR 434/Alafaya Trail
 - Ability to avoid trips on Mitchell Hammock Road
 - Connection to Alexandria Boulevard/ Publix at Alafaya Square
- Constraints
 - Alignment through percolation pond parcels



11. Harrison Street to Franklin Street

Source: Transportation Master Plan



11. Harrison Street to Franklin Street

Source: Transportation Master Plan

- Opportunities
 - Alternative to CR 419
 - Access to Round Lake Park
 - Public ROW
 - Reduce traffic on Windy Pine Way
- Constraints
 - Located in Econ Protection Area
 - Impacts to northern portion of Round Lake Park



12. Lake Hayes Road Extension

Source: City Staff



12. Lake Hayes Road Extension

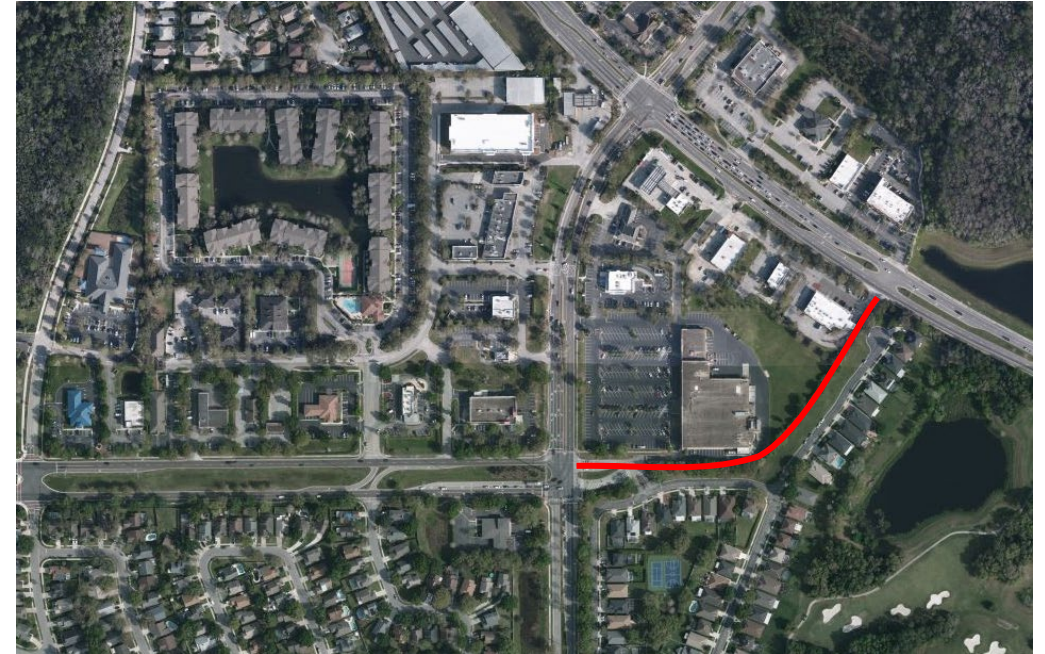
Source: City Staff

- Opportunities
 - East-West alternative for Mitchell Hammock (Alafaya Woods)
 - Potential for long-term future connection to Lockwood Blvd
- Constraints
 - Some ROW is public, but acquisition would be likely required
 - Seminole County canal impacts
 - Econ Protection Area
 - Lake Hayes is County road (not within City limits)



13. Mitchell Hammock Road to SR 419 Extension

Source: Transportation Master Plan



13. Mitchell Hammock Road to SR 419 Extension

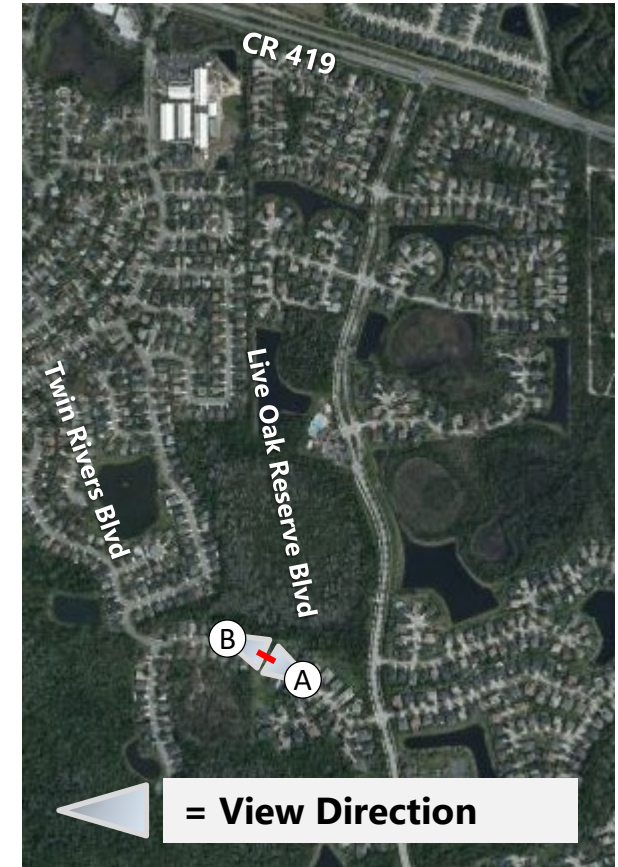
Source: Transportation Master Plan

- Opportunities
 - Alternative to Lockwood Rd and CR 419 intersection
- Constraints
 - Alignment Feasibility Study needed
 - Limited ROW



14. Riverside and Live Oak Pedestrian Connection

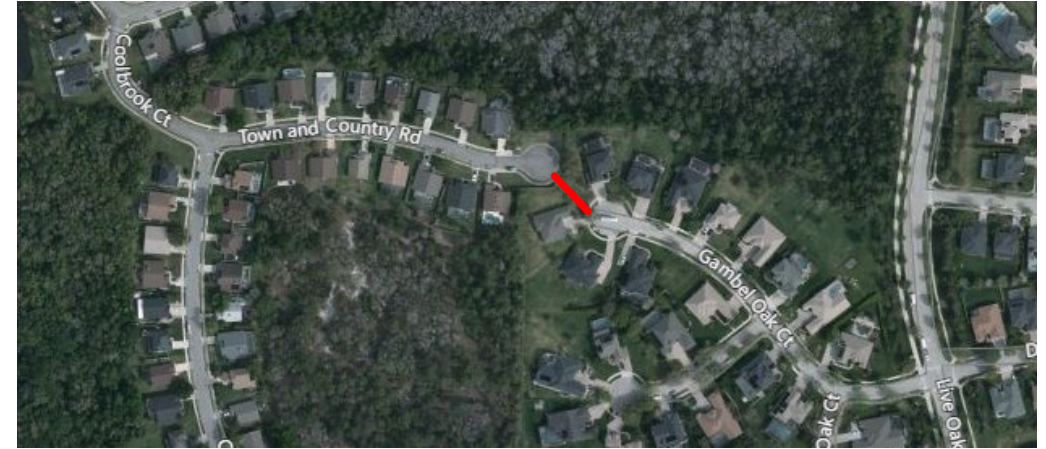
Source: City Staff Kickoff Meeting



14. Riverside and Live Oak Pedestrian Connection

Source: City Staff Kickoff Meeting

- Opportunities
 - Pedestrian connection between communities
 - Improve safety for children going to Partin Elementary School
 - Ability to walk/bike neighborhoods without going along CR 419
 - Existing gate and sidewalk
- Constraints
 - Land owned by HOA
 - Gate is currently locked





Complete Streets and Safety Improvements

- Streets designed for all safe use by all modes, including pedestrians, cyclists, freight, transit riders, and drivers
- Designed for all ages and abilities
- Improves community health
- Reduces air pollution

Edgewater Drive Complete Street

- 40% reduction in vehicle collisions
- 12% reduction in vehicle traffic
- 30% increase in bicyclists
- 23% increase in pedestrians
- 500+ new jobs

MetroPlan Orlando Complete Streets Policy Report

Households spend average of 26% of income on transportation



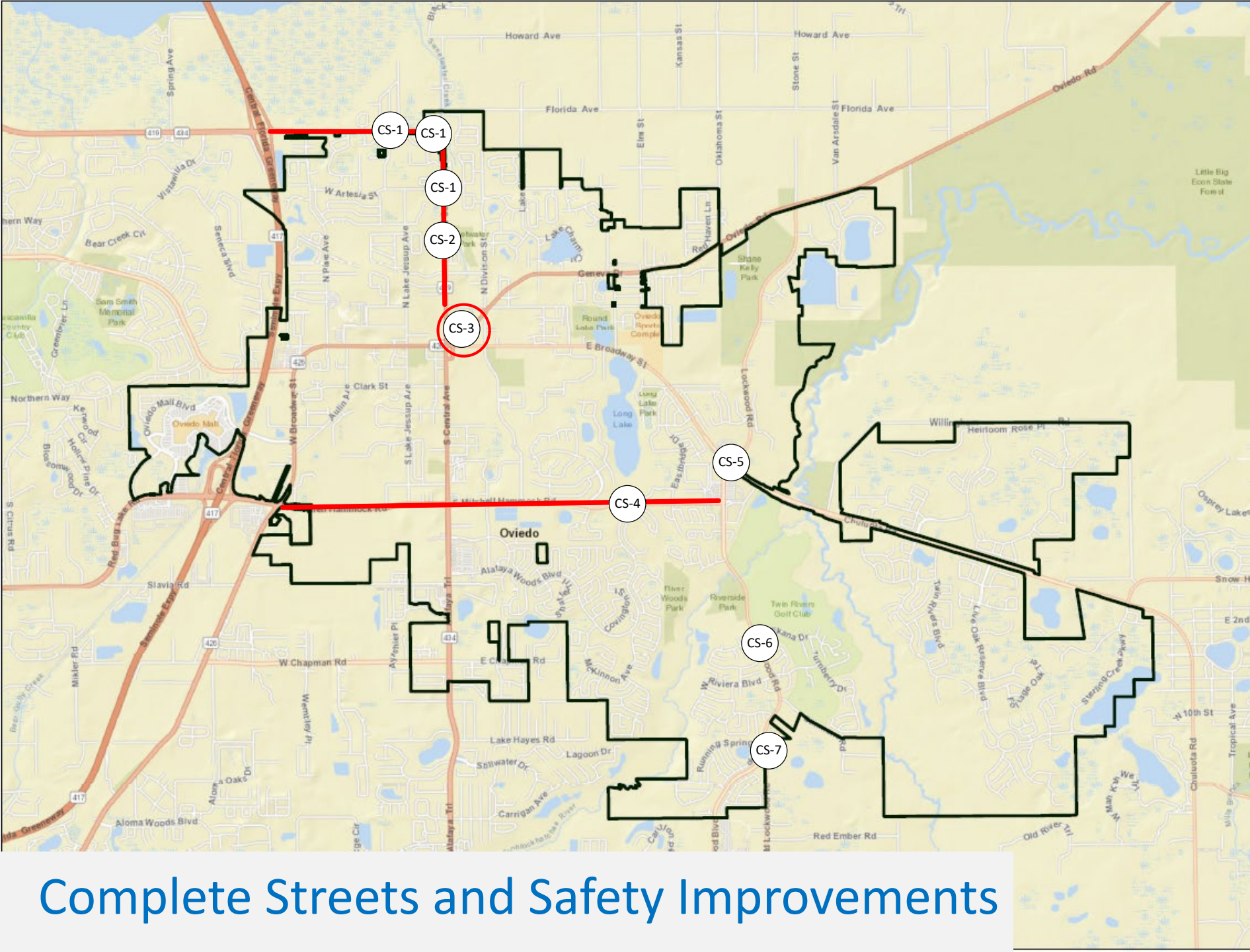


Roundabout Benefits

- Traffic calming by reducing vehicle speeds
- No annual operating costs
- Reduces fatal crashes up to 90%
- Reduces injury crashes up to 76%
- Reduces pedestrian crashes up to 40%

Source: FHWA





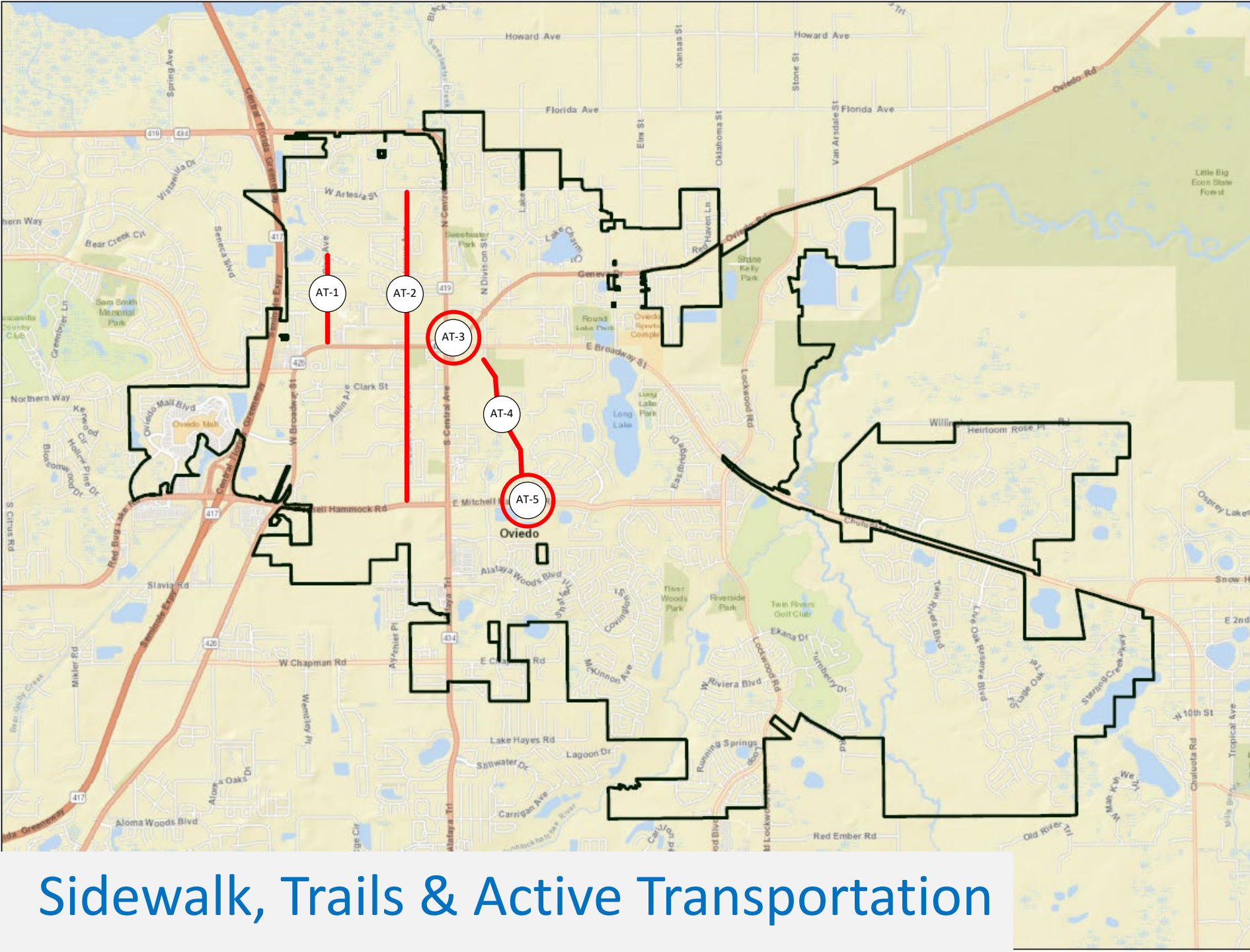
- CS-1. Roundabouts on SR 434 from 417 to Franklin St (FDOT 5-Year Work Plan, MetroPlan Orlando PPL, Estimated 2025/26)
- CS-2. SR 434 Multimodal Complete Street from SR 417 to Franklin St (MetroPlan Orlando PPL, Estimated 2025/26)
- CS-3. Coordinate complete streets with Geneva Drive realignment and SR 434 connector
- CS-4. Mitchell Hammock Rd Multimodal Complete Street from SR 426 to Lockwood Blvd (MetroPlan Orlando PPL)
- CS-5. CR 419 and Lockwood Boulevard Safety Improvements (Seminole County Transportation Master Plan high crash location)
- CS-6. Lockwood Rd/Riviera Blvd roundabout (CIP)
- CS-7. Lockwood Rd/Old Lockwood roundabout (CIP)

Complete Streets and Safety Improvements

Sidewalk, Trails & Active Transportation

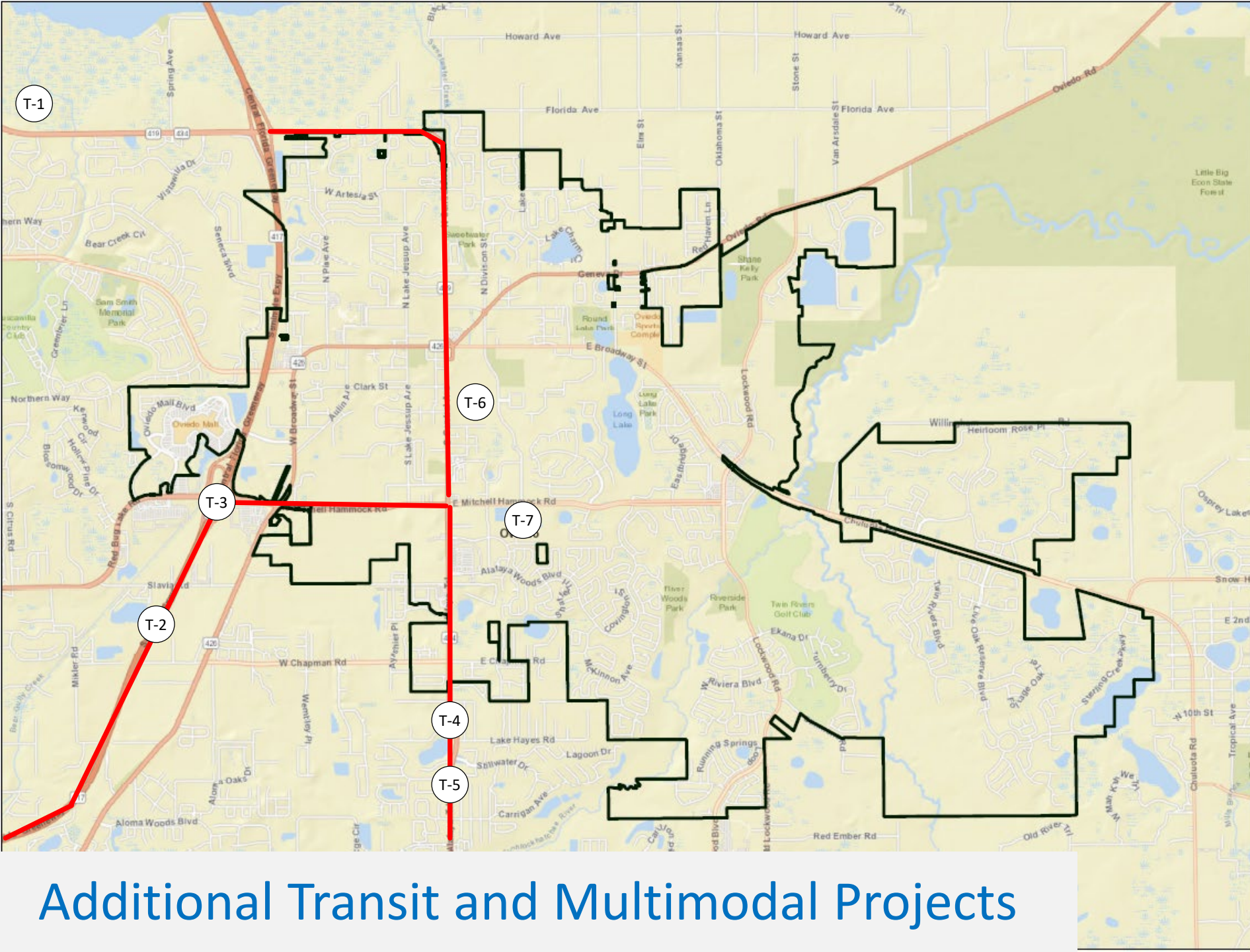
- Sidewalks, trails and active transportation facilities are vital in building a multimodal culture in any city
- These facilities can be used recreationally or for daily activities such as commuting or getting to school
- With two regional trails converging near the city center, there are opportunities to improve active transportation facilities in the City of Oviedo





- AT-1. Pine Ave Safe Routes to School from Oviedo High School to Cross Seminole Trail (MetroPlan Orlando PPL, estimated 2024/25)
- AT-2. Lake Jesup Ave sidewalks from Mitchell Hammock Rd to Artesia St (MetroPlan Orlando PPL)
- AT-3. Incorporate high-quality bike parking and shower facilities near old downtown at the connection of the Cross Seminole Trail and the Florida Trail
- AT-4. Extend Cross Seminole Trail along Oviedo Blvd.
- AT-5. Extend sidewalk from SB Oviedo Blvd to WB Mitchell Hammock Rd; Relocate crosswalk on EB approach (TMP)

Sidewalk, Trails & Active Transportation



- T-1. Prepare a plan to improve public transportation services that includes how to connect to SunRail (Strategic Plan)
- T-2. Potential Express Route SR 417 to SR 408 into Downtown Orlando
- T-3. Park and Ride Lot at SR 417 and Mitchell Hammock Rd. (Seminole County Comprehensive Plan TRA Exhibit 36, 2025 Multimodal Transportation)
- T-4. AV/CV Circulator Infrastructure On SR 434 from McCulloch Road to E Mitchell Hammock Road (FDOT)
- T-5. Potential transit route along SR 434 to SR 50 and into Downtown Orlando
- T-6. Prioritize multimodal infrastructure between Oviedo on the Park and Uptown Oviedo
- T-7. Park and Ride lot at City Hall

Additional Transit and Multimodal Projects



Transit

- Prepare a plan to improve public transportation services that includes how to connect to SunRail (Strategic Plan)
 - Could adapt LYNX route 434 or add additional route along Red Bug Lake Rd to connect to Altamonte Station
- Potential route along SR 434 to SR 50 and into Downtown Orlando
- Potential Express Route SR 417 to SR 408 into Downtown Orlando

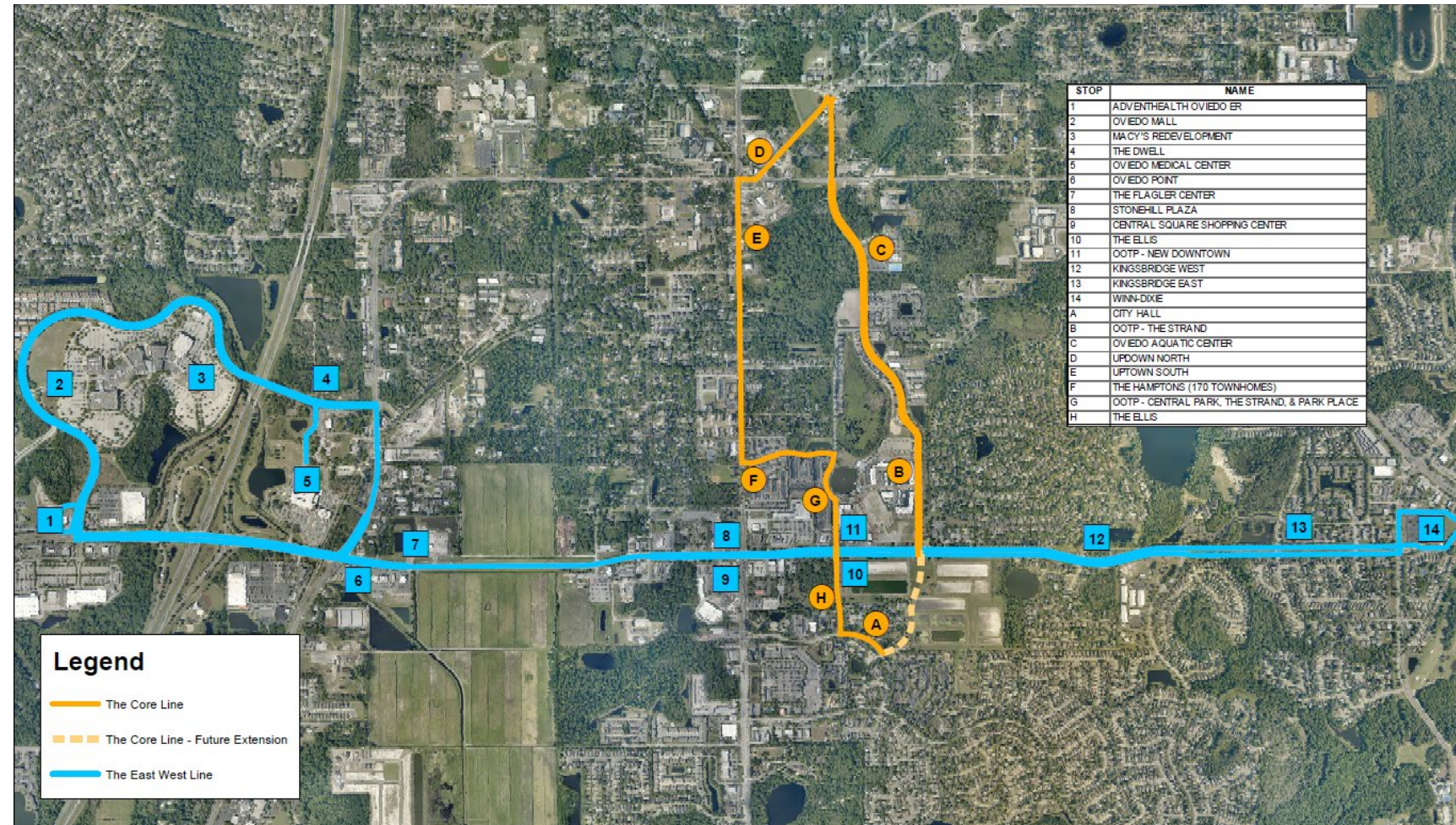


Existing LYNX Transit Services



Transit

- MetroPlan Circulator Study
 - North-south route transverses the City Hall complex, Old Downtown, and New Downtown area and includes the extension of Oviedo Boulevard
 - East-west route, connecting through the Oviedo Mall and to Mitchell Hammock Road.



Connected and Autonomous Vehicle (CAV) Circulator

- Extends available mobility to the area with a First/Last Mile connection.
- Flexible platform that can penetrate dense urban areas and residential communities
- Design Considerations need to be made to maximize use of AV Shuttles, and Micro Mobility Solutions
- NHTSA must approve operations on a route and vehicle basis



Current CAV shuttle characteristics



- Passenger Capacities
 - Most shuttles will advertise a capacity of 10 to 12 passengers
 - Only have seating for 6-8
 - Capacity counts do not include shuttle ambassador
- Speeds
 - Speeds are dependent on geometric and environmental factors
 - Most shuttles will have a maximum speed of 25 MPH
 - Most operational speeds will be <20 MPH
 - Current AV shuttle routes use roads with speed limits 25 MPH or lower
- Run Time
 - Typical run times in Florida are 4-6 hours of continuous operation per shuttle



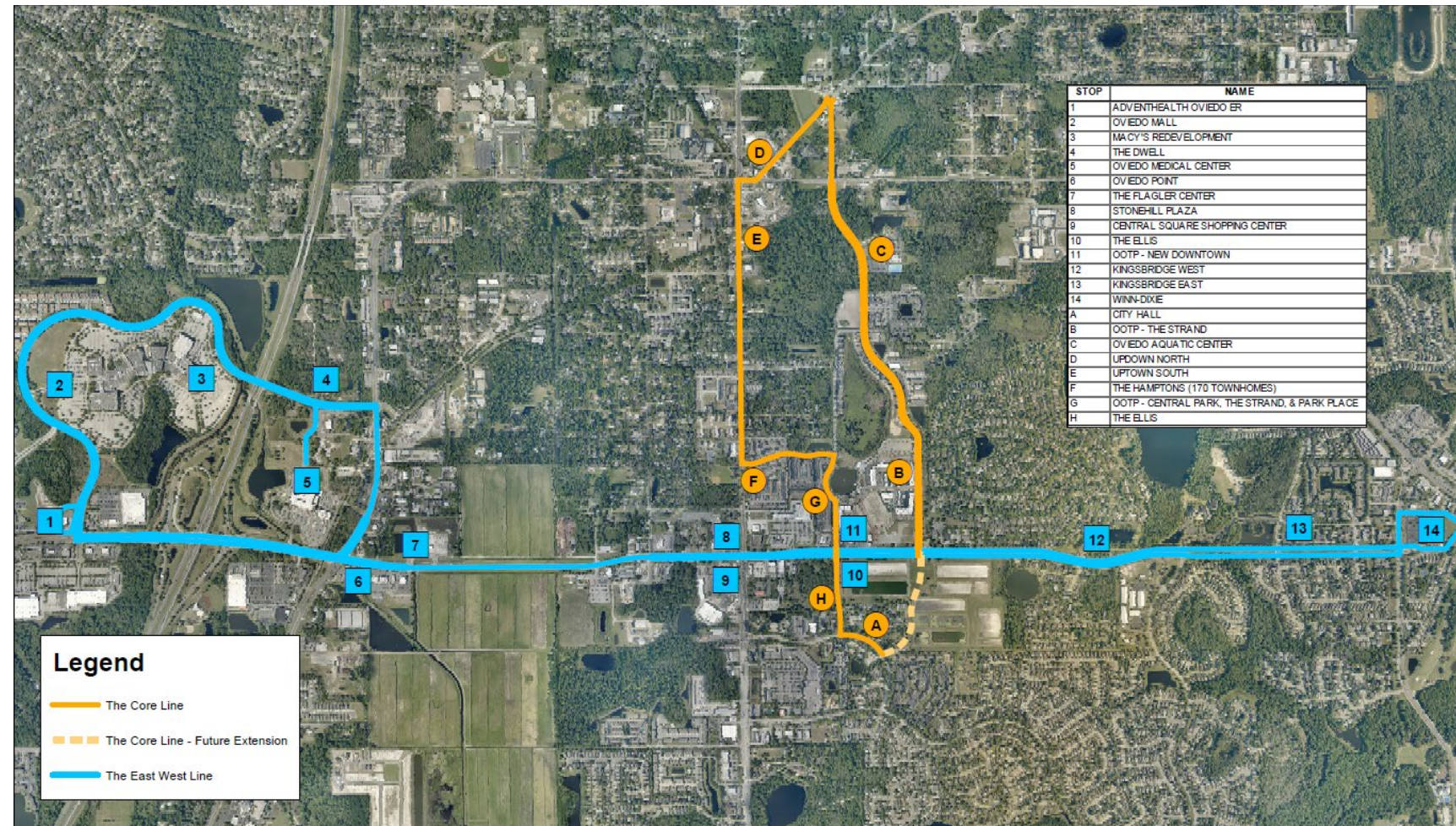
CAV Circulator Opportunities and Constraints

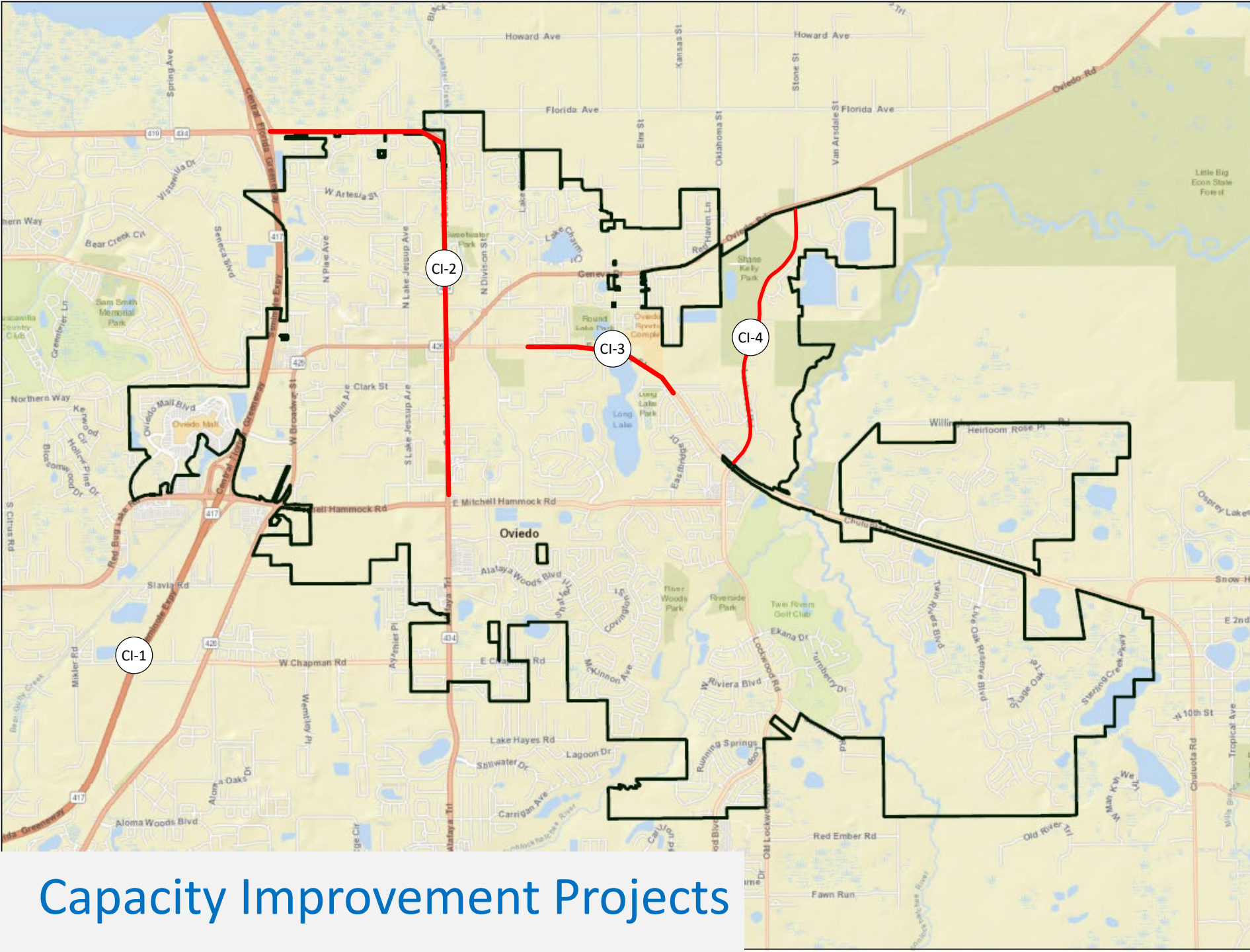
■ Opportunities

- Reduces traffic congestion
- Reduces greenhouse gas emissions
- Provides additional transit service

■ Constraints

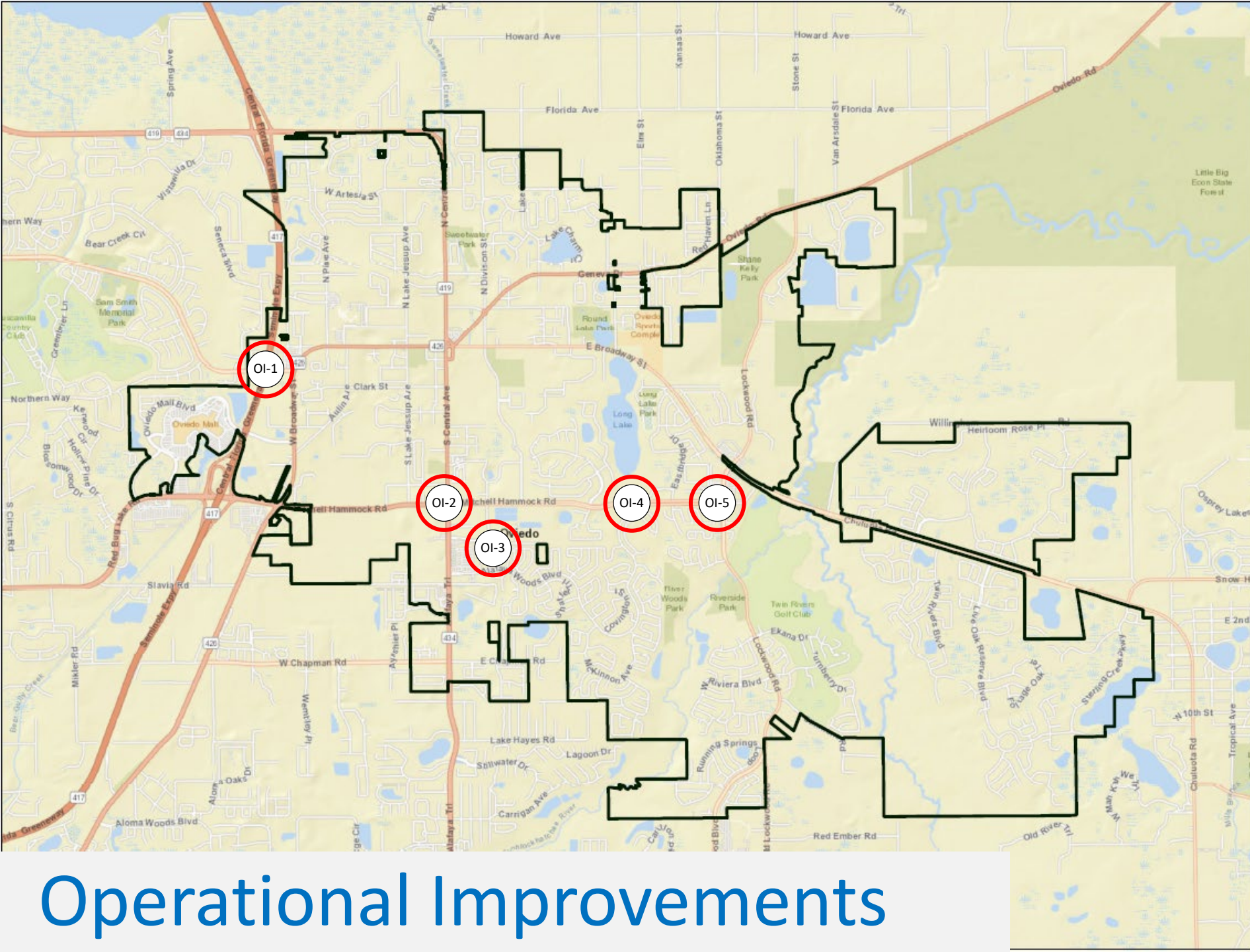
- Top vehicle speed is <25 MPH
- May require dedicated ROW
- Mixed traffic
- Vehicle run time (4-6 hours) and charging requirements
- ADA compliance
- Density of activity centers





- CI-1. Widen SR 417 to 8 lanes from Aloma Ave to SR 434 (FDOT 5-Year Work Plan)
- CI-2. Widen SR 434 to 4 lanes from SR 417 to Mitchell Hammock Rd (MetroPlan Orlando LRTP, MetroPlan Orlando PPL, MetroPlan Orlando Pedestrian Safety Action Plan)
- CI-3. Continuation of the SR 426 and CR 419 Roadway Widening Project (CIP/Strategic Plan/FDOT 5-Year Work Plan/ MetroPlan Orlando LRTP/ MetroPlan Orlando TIP)
- CI-4. Lockwood Boulevard from CR 419 to CR 426 (TMP)

Capacity Improvement Projects

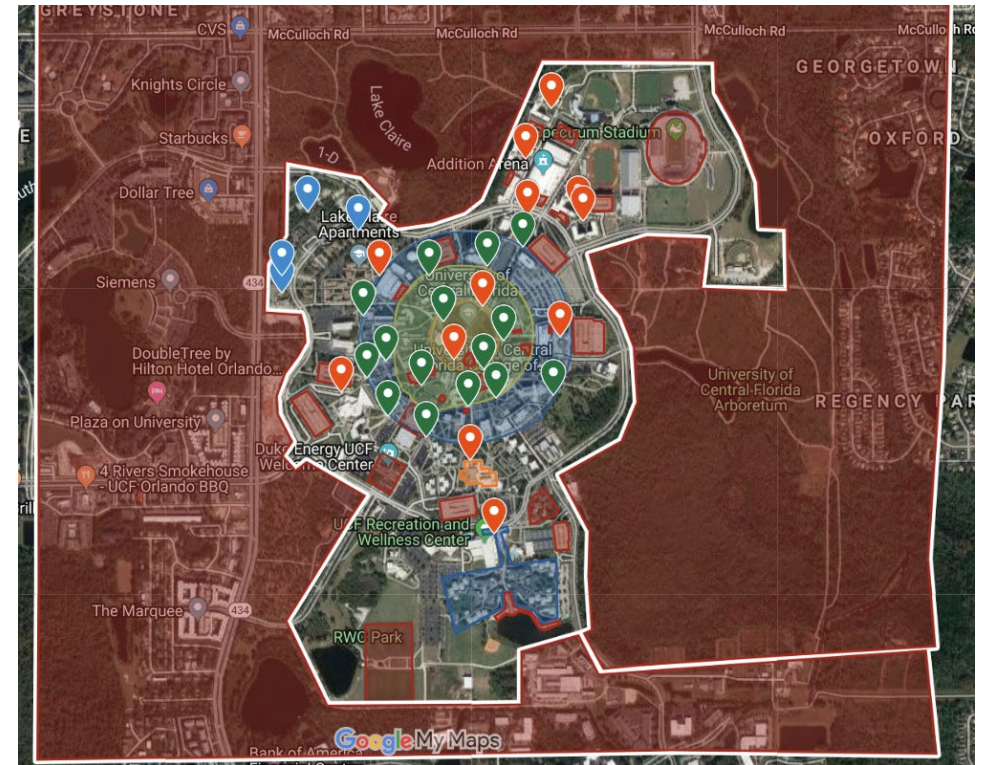


- OI-1. SR 417/Winter Springs Blvd
Half interchange NB (TMP)
- OI-2. Mitchell Hammock Road
and SR 434 intersection
improvements (TMP)
- OI-3. Clara Lee Evans
Way/Alexandria Blvd
signalization (TMP)
- OI-4. Mitchell Hammock Road
and Alafaya Woods Blvd
intersection improvements
(TMP)
- OI-5. Mitchell Hammock Road
and Lockwood Boulevard
intersection improvements
(TMP)

Operational Improvements

Additional Projects

- Extend micromobility (scooter share and bike share) zones from UCF north into the City
- Prioritize micromobility infrastructure between Oviedo on the Park and Old Downtown
- Adaptive Traffic Signalization system along the major arterial corridors of the City (Strategic Plan)



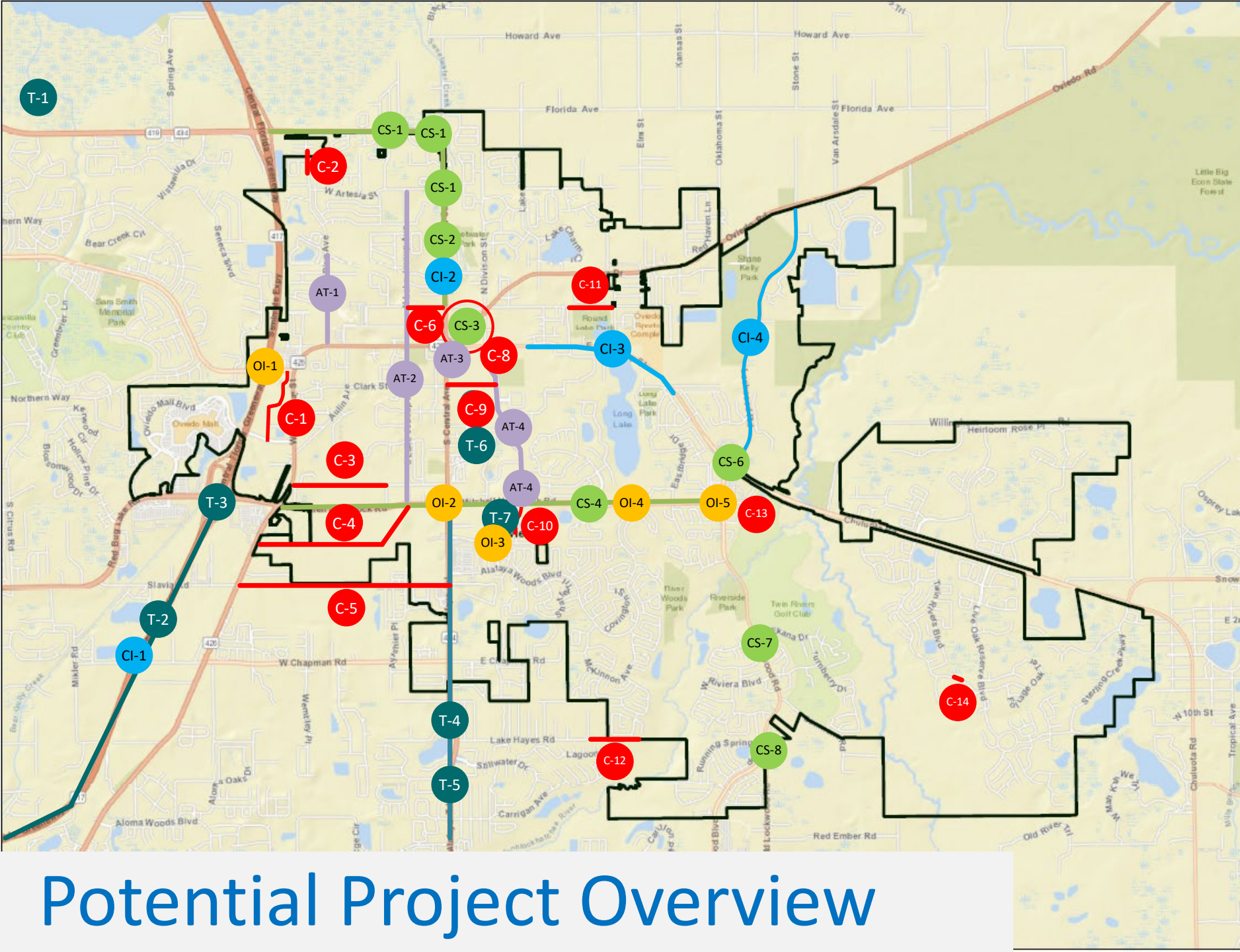
UCF Micromobility Zones



Additional Programming and Policies

- Safe Routes to School
- reThink Your Commute
- LYNX Vanpool Incentives
- Park and Ride
 - Park and Ride Lot at SR 417 and Mitchell Hammock Rd.
 - Park and Ride Lot at City Hall
- Bike Programming
 - Become a Bike Friendly City with the League of American Bicyclists
 - Integrate Bike Friendly Business Program
 - Educational programming including training with League Cycling Instructors (LCIs) and Cycling Savvy





- C** Connectivity
- CS** Complete Streets
- AT** Sidewalk, Trails & Active Transportation
- T** Transit and Multimodal
- CI** Capacity
- OI** Operational Improvements

Potential Project Overview



Category	#	Project	Funded (Y/N)	Funded By	Year
Connectivity	1	Oviedo Medical Drive to Winter Springs Boulevard	N	N/A	
	2	Connect Pine Avenue to SR 434	N	N/A	
	3	Clonts Street Extension	N	N/A	
	4	Duda Road Extension	N	N/A	
	5	Extension of Slavia Road	N	N/A	
	6	Franklin Street Extension from Lake Jesup Ave to SR 434	N	N/A	
	7	Re-alignment of Geneva Drive	Y	City of Oviedo	19/20
	8	Geneva Drive to SR 434 Connector	Y (Preliminary Design)	City of Oviedo	
	9	Clark Street to Oviedo Boulevard	N	City of Oviedo	
	10	Oviedo Boulevard Extension	N	N/A	
	11	Harrison Street to Franklin Street	N	N/A	
	12	Lake Hayes Road Extension	N	N/A	
	13	Mitchell Hammock Road to SR 419	N	N/A	
	14	Riverside to Live Oak Pedestrian Connection	N	N/A	
Complete Streets	1	Roundabouts on SR 434 from 417 to Franklin Street	N	FDOT 5 Year Work Program Candidate Line Item	2021
	2	SR 434 Multimodal Complete Street	Y	FDOT / City of Oviedo	PE/ROW/ENV: 24/25 CST: 2026-2030
	3	Coordinate Complete Streets improvements with Geneva Drive realignment and SR 434 Connector		N/A	
	4	Mitchell Hammock Rd Multimodal Complete Street	N	N/A	25/26
	5	Mitchell Hammock Road and Lockwood Boulevard intersection improvements	Y	City of Oviedo	19/20
	6	CR 419 and Lockwood Boulevard Safety Improvements	N	N/A	
	7	Lockwood Rd/Riviera Boulevard roundabout	Y	City of Oviedo	20/21-21/22
	8	Lockwood Rd/Old Lockwood roundabout	Y	City of Oviedo	22/23-23/24
Sidewalk, Trails & Active Transportation	1	Pine Ave Safe Routes to School	N	N/A	24/25
	2	Lake Jesup Ave Sidewalks	N	N/A	N/A
	3	Incorporate high-quality bike parking and shower facilities near Old Downtown	N	N/A	
	4	Extend Cross Seminole Trail along Oviedo Boulevard	N	N/A	N/A
	5	Mitchell Hammock at Oviedo Blvd sidewalk and crossing improvements	N	Developer Driven	N/A
Transit and Multimodal	1	Plan to improve public transportation services	N	City of Oviedo	N/A
	2	Express Route SR 417 to SR 408 into Downtown Orlando	N		
	3	Park and Ride Lot at SR 417 and Mitchell Hammock Rd.	N	FDOT / Seminole County	N/A
	4	AV/CV Circulator Infrastructure On SR 434	Y	FDOT / Seminole County	2021
	5	Transit route along SR 434 to SR 50 and into Downtown Orlando	N	N/A	
	6	Prioritize multimodal infrastructure between Oviedo on the Park and Uptown Oviedo	N	N/A	N/A
	7	Park and Ride lot at City Hall	N	FDOT / Seminole County	N/A
Capacity	1	Widen SR 417 to 8 lanes from Aloma Ave to SR 434	Y	FDOT	2025
	2	Widen SR 434 to 4 lanes from SR 417 to Mitchell Hammock Rd	N	FDOT / Seminole County	
	3	SR 426 and CR 419 Roadway Widening Project (Phase II)	Y	City of Oviedo / FDOT	20/21-21/22
	4	Widen SR 417 to 8 lanes from Aloma Ave to SR 434	Y	FDOT	2025
Operational Improvements	1	SR 417/Winter Springs Boulevard - Half interchange NB	N	Developer Driven	
	2	Mitchell Hammock Road/SR 434 intersection improvements	N	N/A	
	3	Clara Lee Evans Way/ Alexandria Blvd signalization	N	Developer Driven	
	4	Mitchell Hammock Road/Alafaya Woods Blvd intersection improvements	N	N/A	
	5	Mitchell Hammock Road/Lockwood Blvd intersection improvements	N	N/A	



Discussion Items

- What additional projects or programs should be implemented?
- Which proposed projects should be prioritized?
- What are some obstacles you foresee in pushing the discussed projects forward?





Next Steps

- VHB team to refine Preliminary Project and Program list based upon City Council feedback.
- Public Workshop to get community feedback
- 2nd City Council Work Session to present results of community feedback
- Prepare draft 10-year Mobility Plan
 - Prioritized list of improvements
 - Estimates of probable cost
 - Funding strategies